



# Federal Register

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**Friday,  
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## **Part IV**

## **Environmental Protection Agency**

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**40 CFR Parts 51, 52 et al.**

**Air Pollution Control—Transport of  
Emissions of Nitrogen Oxides (NO<sub>x</sub>) and  
Sulfur Dioxide (SO<sub>2</sub>); Final Rule**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Parts 51, 52, 72, 73, 74, 78, 96, and 97**

[EPA-HQ-OAR-2004-0076; FRL-8047-5]

RIN 2060-AM99

**Rulemaking on Section 126 Petition From North Carolina To Reduce Interstate Transport of Fine Particulate Matter and Ozone; Federal Implementation Plans To Reduce Interstate Transport of Fine Particulate Matter and Ozone; Revisions to the Clean Air Interstate Rule; Revisions to the Acid Rain Program****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Notice of final rulemaking (NFR).

**SUMMARY:** Today, EPA is taking actions to address the interstate transport of emissions of nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) that contribute significantly to nonattainment and maintenance problems with respect to the national ambient air quality standards (NAAQS) for fine particulate matter (PM<sub>2.5</sub>) and 8-hour ozone. As one part of today's action, EPA is providing its final response to a petition submitted to EPA by the State of North Carolina under section 126 of the Clean Air Act (CAA). The petition requests that EPA find that SO<sub>2</sub> and/or NO<sub>x</sub> emissions from electric generating units (EGUs) in 13 States are significantly contributing to PM<sub>2.5</sub> and/or 8-hour ozone nonattainment and maintenance problems in North Carolina, and requested that EPA establish control requirements to prohibit such significant contribution. The EPA is denying the petition because, in today's action, EPA is promulgating Federal implementation plans (FIPs) for all jurisdictions covered by the Clean Air Interstate Rule (CAIR) to address interstate transport.

The FIPs will regulate EGUs in the affected States and achieve the emissions reductions requirements established by the CAIR until States have approved State implementation plans (SIPs) to achieve the reductions.

As the control requirement for the FIPs, EPA is adopting the model trading rules that EPA provided in CAIR as a control option for States, with minor changes to account for Federal rather than State implementation.

Today's action also revises CAIR SIP model trading rules in order to address the interaction between the EPA-administered CAIR FIP trading programs being promulgated today and the EPA-administered CAIR State trading programs that will be created by any State that elects to submit a SIP establishing such a trading program to meet the requirements of the CAIR. In addition, EPA is taking final action on our reconsideration of the definition of "EGU" as it relates to solid waste incinerators.

Today's action also makes revisions to the Acid Rain Program in order to make the administrative appeals procedures, which currently apply to final determinations by the Administrator under the EPA-administered CAIR State trading programs, also apply to the EPA-administered trading programs under the FIP action. In addition, we are making certain minor revisions to the Acid Rain Program that will apply to all affected units.

**DATES:** This action is effective on June 27, 2006.

**ADDRESSES:** 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 on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the EPA Docket Center (Air Docket), EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number

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

**FOR FURTHER INFORMATION CONTACT:** For general questions concerning today's section 126 action, please contact Carla Oldham, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Policy Division, C504-05, Research Triangle Park, NC 27711, telephone (919) 541-3347, e-mail at [oldham.carla@epa.gov](mailto:oldham.carla@epa.gov). For general questions concerning today's FIP action, please contact Tom Coda, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Policy Division, C539-01, Research Triangle Park, NC 27711, telephone (919) 541-3037, e-mail at [coda.tom@epa.gov](mailto:coda.tom@epa.gov). For legal questions concerning the section 126 action, please contact Steven Silverman, U.S. EPA, Office of General Counsel, Mail Code 2344A, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 564-5523, e-mail at [silverman.steven@epa.gov](mailto:silverman.steven@epa.gov). For legal questions concerning the FIP action, please contact Sonja Rodman, U.S. EPA, Office of General Counsel, Mail Code 2344A, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 564-4097, e-mail at [rodman.sonja@epa.gov](mailto:rodman.sonja@epa.gov). For questions regarding the cap-and-trade programs and emissions budgets, please contact Meg Victor, U.S. EPA, Office of Atmospheric Programs, Clean Air Markets Division, Mail Code 6204J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 343-9193, e-mail at [victor.meg@epa.gov](mailto:victor.meg@epa.gov). For questions regarding the revisions to the CAIR and Acid Rain Programs, please contact Dwight Alpern, U.S. EPA, Office of Atmospheric Programs, Clean Air Markets Division, Mail Code 6204J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 343-9151, e-mail at [alpern.dwight@epa.gov](mailto:alpern.dwight@epa.gov).

**SUPPLEMENTARY INFORMATION:****I. Does This Action Apply to Me?**

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

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

Category	NAICS code <sup>1</sup>	Examples of potentially regulated entities
	921150	Fossil fuel-fired electric utility steam generating units in Indian Country.

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

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

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is affected by this action, you should examine the definitions and applicability criteria in §§ 72.2, 72.6, 72.7, 72.8, and 74.2 for purposes of the Acid Rain Program revisions and §§ 97.102, 97.104, 97.105, 97.202, 97.204, 97.205, 97.302, 97.304, and 97.305 for purposes of the FIP action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding section under **FOR FURTHER INFORMATION CONTACT.**

## II. Availability of Related Information

The EPA has conducted separate rulemakings that contain actions and information related to today's action. The final "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule)" was published on May 12, 2005 (70 FR 25162) (see also proposal at 69 FR 4566, January 30, 2004; supplemental proposal at 69 FR 32684, June 10, 2004; and notice of data availability at 69 FR 47828, August 6, 2004). The EPA subsequently reconsidered several aspects of the final CAIR (see 70 FR 72268; December 2, 2005 and 70 FR 77101; December 29, 2005) and is taking final action on reconsideration in a separate action today. In addition, the EPA issued a proposal to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub> (70 FR 25408, May 12, 2005) and is finalizing that rulemaking today, also in a separate action. Documents related to the CAIR, including the actions on reconsideration and to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub>, are available for inspection in docket EPA-HQ-OAR-2003-0053 at the address and times given above. The EPA has established a website for the CAIR at <http://www.epa.gov/cleanairinterstaterule> or more simply <http://www.epa.gov/cair/> which also includes information on the section 126 rulemaking. The rulemaking docket for the CAIR contains information and analyses that are relied upon in today's actions. Therefore, EPA is including by reference the entire CAIR record for purposes of the section 126 and FIP rulemakings.

## III. Judicial Review

Under CAA section 307(b), judicial review of this final action is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before June 27, 2006. Under CAA section 307(d)(7)(B), only those objections to the final rule that were raised with specificity during the period for public comment may be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) also provides a mechanism for the EPA to convene a proceeding for reconsideration if the petitioner demonstrates that it was impracticable to raise an objection during the public comment period or if the grounds for such objection arose after the comment period (but within the time for judicial review) and if the objection is of central relevance to the rule. Any person seeking to make such a demonstration to EPA should submit a Petition for Reconsideration, clearly labeled as such, to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., Washington, DC 20460, with a copy to the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel, Mail Code 2344A, U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

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## I. Background and Summary of Rule

### A. Summary of Rule

In this rule, EPA is taking two final actions related to the interstate transport of emissions of NO<sub>x</sub> and SO<sub>2</sub> that contribute significantly to nonattainment and maintenance problems with respect to the NAAQS for PM<sub>2.5</sub> and 8-hour ozone. First, EPA is providing its final response to the petition submitted to EPA by the State of North Carolina under section 126 of the CAA. Second, EPA is promulgating FIPs for all jurisdictions covered by the CAIR. The EPA is also making revisions to the final CAIR to clarify certain provisions, to correct minor errors, and to take final action on reconsideration of the definition of "EGU" as it relates to solid waste incinerators. Finally, EPA is making minor revisions to the Title IV Acid Rain Program.

The North Carolina petition requests that EPA establish control requirements for EGUs in 13 States based on findings that these sources are significantly contributing to PM<sub>2.5</sub> and/or 8-hour ozone nonattainment and maintenance problems in North Carolina. (See Petition, Docket No. EPA-HQ-OAR-2004-0076-0002.)

The EPA's response (as well as the petition itself) is based on extensive analyses conducted for the CAIR (70 FR 25162; May 12, 2005). The EPA is denying the petition in full. For sources in States not shown in the final CAIR to be linked to (that is, to significantly contribute to) nonattainment and maintenance problems in North Carolina, the lack of significant contribution to North Carolina is the

basis for this denial. For sources in States that are linked to North Carolina under the CAIR for the PM<sub>2.5</sub> NAAQS, EPA is denying the petition because, concurrently with the section 126 response, EPA is promulgating FIPs that require elimination of the significant contribution. The FIPs will control the significant transport from sources in States named in the petition as well as from sources in the other CAIR States, in the event that the States do not have timely, approved SIPs meeting the CAIR requirements. The States named in the petition with respect to the PM<sub>2.5</sub> NAAQS are: Alabama, Georgia, Illinois, Indiana, Kentucky, Michigan, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia. Of these, Illinois and Michigan are not linked to North Carolina in the final CAIR.

The States named in the petition with respect to the 8-hour ozone NAAQS are: Georgia, Maryland, South Carolina, Tennessee, and Virginia. There are no States linked to North Carolina under the CAIR for the 8-hour ozone NAAQS because North Carolina is projected to be in attainment in the 2010 baseline for the analyses.

As mentioned above, in today's action, EPA is also promulgating FIPs to address interstate transport of NO<sub>x</sub> and SO<sub>2</sub> under section 110(a)(2)(D) for all jurisdictions that are covered by the CAIR. In the CAIR, EPA determined that 28 States and the District of Columbia contribute significantly to nonattainment of the NAAQS for PM<sub>2.5</sub> and/or 8-hour ozone in downwind States. The CAIR explains EPA's basis for determining significant contribution to downwind nonattainment and maintenance problems. In that rule, the EPA required the affected upwind States to revise their SIPs to include control measures to reduce emissions of SO<sub>2</sub> and/or NO<sub>x</sub>. Sulfur dioxide is a precursor to PM<sub>2.5</sub> formation, and NO<sub>x</sub> is a precursor to both ozone and PM<sub>2.5</sub> formation.

In an action published on the same day as the final CAIR, EPA proposed to find that Delaware and New Jersey contribute significantly to PM<sub>2.5</sub> nonattainment and maintenance problems in downwind States considering these States as a single entity (70 FR 25408; May 12, 2005). These States were included in the final CAIR only with respect to their impacts on downwind 8-hour ozone nonattainment and maintenance problems. Today, in a separate action, EPA is issuing the final rule to include Delaware and New Jersey in the CAIR region for PM<sub>2.5</sub>. Therefore, today's FIP rule includes emissions reductions

requirements for Delaware and New Jersey to address their significant contribution to nonattainment or maintenance problems for the PM<sub>2.5</sub> NAAQS.

The FIPs will regulate EGUs in the affected States and achieve the emissions reductions required by the CAIR until States have approved SIPs to achieve the reductions. The CAIR emissions budgets were based on control requirements that are highly cost effective for EGUs.

The EPA intends the CAIR FIPs to address the requirements of section 110(a)(2)(D)(i) to prevent interstate transport that contributes significantly to nonattainment or interferes with maintenance in downwind areas and to provide a Federal backstop for CAIR. In no way should the FIPs for CAIR be viewed as a sign of any concern about States meeting their SIP responsibilities under CAIR. There are no sanctions associated with these FIPs and EPA does not intend for CAIR FIPs to have any negative consequences for the affected States. The EPA is providing FIP approaches that are flexible and intended to provide States options for getting their SIPs in place.

As the control requirement for the FIPs, EPA is adopting the model trading rules that EPA provided in CAIR as a control option for States, with minor changes to account for Federal rather than State implementation. The CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> trading programs provide emissions reductions equal to those required under the CAIR in affected States.

These trading programs provide emissions reductions equal to those required under CAIR in the affected States. The CAIR FIP trading programs are integrated with the EPA-administered State CAIR trading programs that are based on the model rules so that sources can trade with one another under the respective emissions caps. The EPA emphasizes that the FIPs do not limit the options available to States to meet the requirements of the CAIR. We do not intend to record NO<sub>x</sub> allocations in sources' allowance accounts (or take any other steps to implement FIP requirements that could impact a State's ability to regulate their sources in a different manner) until a year after the CAIR SIP submission deadline.<sup>1</sup> This will allow EPA time to

<sup>1</sup> The CAIR requires affected sources to begin monitoring 1 year before the initial control periods (*i.e.*, sources begin monitoring in 2008 for the NO<sub>x</sub> programs and begin monitoring in 2009 for the SO<sub>2</sub> program). Note that EPA will take any necessary actions to implement the monitoring provisions of the FIP trading rules in time for monitoring to begin in 2008. To the extent that a State chooses to

take rulemaking action to approve timely SIPs before implementation of FIP requirements occurs. In addition, States could replace the FIP requirements at a later time.

In today's action, EPA is also making revisions to the CAIR in order to address the interaction of EPA-administered NO<sub>x</sub> and SO<sub>2</sub> trading programs under the CAIR and under the FIP action. In addition, EPA is making revisions to the CAIR in order to clarify certain provisions and to correct certain minor errors and taking final action on reconsideration of the definition of "EGU" as it relates to solid waste incinerators.

The EPA is also revising the Title IV Acid Rain Program in order to make the administrative appeals procedures (in 40 CFR part 78), which currently apply to final determinations by the Administrator under the EPA-administered State CAIR trading programs, also apply to the EPA-administered trading programs under the FIPs. In addition, EPA is making minor revisions that would apply to all affected units under the Acid Rain Program.

#### *B. General Background on PM<sub>2.5</sub> and Ozone*

##### **1. The PM<sub>2.5</sub> Problem**

In an action published on July 18, 1997, we revised the NAAQS for particulate matter (PM) to add new standards for fine particles, using as the indicator particles with aerodynamic diameters smaller than a nominal 2.5 micrometers, termed PM<sub>2.5</sub> (62 FR 38652). We established health- and welfare-based (primary and secondary) annual and 24-hour standards for PM<sub>2.5</sub>. The annual standard is 15 micrograms per cubic meter, based on the 3-year average of annual mean PM<sub>2.5</sub> concentrations. The 24-hour standard is 65 micrograms per cubic meter, based on the 3-year average of the annual 98th percentile of 24-hour concentrations. The annual standard is generally considered the more limiting value.<sup>2</sup>

Fine particles are associated with a number of serious health effects including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by

increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems. (See EPA, Air Quality Criteria for Particulate Matter (EPA/600/P-99/002bF, October 2004) at 9.2.2.3.) The EPA has estimated that attainment of the current PM<sub>2.5</sub> standards would prolong tens of thousands of lives and would prevent, each year, tens of thousands of hospital admissions as well as hundreds of thousands of doctor visits, absences from work and school, and respiratory illnesses in children.

Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children. More detailed information on health effects of fine particles can be found on EPA's Web site at: [http://www.epa.gov/ttn/naaqs/standards/pm/s\\_pm\\_index.html](http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html).

The secondary or welfare-based PM<sub>2.5</sub> standards are designed to protect against major environmental effects caused by PM such as visibility impairment, soiling, and materials damage.

As discussed in other sections of this preamble, SO<sub>2</sub> and NO<sub>x</sub> emissions both contribute to fine particle concentrations. In addition, NO<sub>x</sub> emissions contribute to ozone concentrations, described in the next section.

The PM<sub>2.5</sub> ambient air quality monitoring for the 2001–2003 period shows that areas violating the standards are located across much of the eastern half of the United States and in parts of California and Montana. The EPA published the PM<sub>2.5</sub> attainment and nonattainment designations on January 5, 2005 (70 FR 944) and issued supplemental amendments on April 14, 2005 (70 FR 19844).

##### **2. The 8-Hour Ozone Problem**

In an action published on July 18, 1997, we promulgated identical revised primary and secondary ozone standards that specified an 8-hour ozone standard of 0.08 parts per million (ppm). Specifically, under the standards, the 3-year average of the fourth highest daily maximum 8-hour average ozone concentration may not exceed 0.08 ppm. In general, the revised 8-hour standards are more protective of public health and the environment and more stringent than the pre-existing 1-hour ozone standards.

Short-term (1- to 3-hour) and prolonged (6-to 8-hour) exposures to ambient ozone have been linked to a number of adverse health effects. At sufficient concentrations, short-term

exposure to ozone can irritate the respiratory system, causing coughing, throat irritation, and chest pain. Ozone can reduce lung function and make it more difficult to breathe deeply. Breathing may become more rapid and shallow than normal, thereby limiting a person's normal activity. Ozone also can aggravate asthma, leading to more asthma attacks that may require a doctor's attention and the use of additional medication. Increased hospital admissions and emergency room visits for respiratory problems have been associated with ambient ozone exposures. Longer-term ozone exposure can inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue and irreversible reductions in lung function. A lower quality of life may result if the inflammation occurs repeatedly over a long time period (such as months, years, or a lifetime). There is also recent epidemiological evidence suggesting that there may be a correlation between short-term ozone exposure and premature mortality.

People who are particularly susceptible to the effects of ozone include people with respiratory diseases, such as asthma. Those who are exposed to higher levels of ozone include adults and children who are active outdoors.

In addition to causing adverse health effects, ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses (e.g., harsh weather). In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can also decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of our national parks and recreation areas. More detailed information on health effects of ozone can be found at the following EPA Web site: [http://www.epa.gov/ttn/naaqs/standards/ozone/s\\_o3\\_index.html](http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_index.html).

Presently, wide geographic areas, including most of the nation's major population centers, experience ozone levels that violate the NAAQS for 8-hour ozone. These areas include much of the eastern part of the United States and large areas of California. The EPA published the 8-hour ozone attainment and nonattainment designations in the **Federal Register** on April 30, 2004 (69 FR 23858).

control EGUs to meet its CAIR obligations, the monitoring requirements will be identical whether EPA regulations EGUs through the Federal trading programs or the State regulates EGUs through its SIP.

<sup>2</sup> The EPA recently proposed to amend the NAAQS for PM<sub>2.5</sub> (71 FR 2620; Jan. 17, 2006). The EPA is scheduled to take final action on this proposal by September 27, 2006. These actions are not relevant to this rulemaking because all of the actions herein concern the existing NAAQS.

### 3. Other Environmental Effects Associated With SO<sub>2</sub> and NO<sub>x</sub> Emissions

In addition to the enumerated human health and welfare benefits resulting from reductions in ambient levels of PM<sub>2.5</sub> and ozone, reductions in NO<sub>x</sub> and SO<sub>2</sub> will contribute to substantial visibility improvements in many parts of the eastern United States. Reductions in these pollutants will also reduce acidification and eutrophication of water bodies in the region. In addition, reducing emissions of NO<sub>x</sub> and SO<sub>2</sub> from EGUs can be expected to reduce emissions of mercury. Reduced mercury emissions in turn may reduce mercury loadings in lakes and thereby potentially decrease both human and wildlife exposure to fish containing mercury.

#### *C. What Is the Statutory and Regulatory Background for Today's Action?*

##### 1. What Is the "Good Neighbor" Provision?

Following promulgation of new or revised NAAQS, the CAA requires all areas, regardless of their designation as attainment, nonattainment, or unclassifiable, to submit SIPs containing provisions specified under section 110(a)(2). Among these requirements are those specified by the so-called "good neighbor" provision section 110(a)(2)(D) which addresses interstate transport of air pollution.

Section 110(a)(2)(D) requires that a SIP contain adequate provisions—

(i) Prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

(I) Contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to [any] national primary or secondary ambient air quality standard, or

(II) Interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility.

(ii) Insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);

Section 126 is discussed in the following section and section II of this preamble explains the relationship between CAA sections 110 and 126 with respect to our final response to the section 126 petition and the CAIR FIPs.

##### 2. What Is the CAA Section 126 Provision?

Subsection (a) of section 126 requires, among other things, that SIPs require

major proposed new (or modified) stationary sources to notify nearby States for which the air pollution levels may be affected by the fact that such sources have been permitted to commence construction. Subsection (b) provides:

Any State or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)[(i)] [of this section\* \* \*].

Subsection (c) of section 126 states that— [I]t shall be a violation of this section and the applicable implementation plan in such State [in which the source is located or intends to locate]—

(1) For any major proposed new (or modified) source with respect to which a finding has been made under subsection (b) to be constructed or to operate in violation of this section and the prohibition of section 110(a)(2)(D)[(i)]<sup>3</sup> [of this section, or

(2) for any major existing source to operate more than three months after such finding has been made with respect to it.

However, subsection (c) further provides that EPA may permit the continued operation of such major existing sources beyond the 3-month period, if such sources comply with EPA-promulgated emissions limits within 3 years of the date of the finding.

##### 3. What Is EPA's Previous Section 126 Rulemaking?

The EPA has previously taken action under section 126 to address interstate ozone transport (64 FR 28250; May 25, 1999 and 65 FR 2674; January 18, 2000). Because there are many parallels between that earlier action and today's rule, we briefly discuss our earlier action here.

Like the present rulemaking, EPA's previous section 126 rulemaking, dealing with interstate transport of NO<sub>x</sub>, occurred essentially in conjunction with an EPA rulemaking dealing with interstate transport of the same pollutants, the NO<sub>x</sub> SIP Call (62 FR 60318; November 7, 1997). As in today's rule, EPA concluded that section 126 and section 110(a)(2)(D)(i) are integrally connected (due to the reference to the section 110(a)(2)(D)(i) prohibition found in section 126 (b)). Thus, the interstate transport problem at issue could be addressed under either provision, and once the underlying section 110(a)(2)(D)(i) SIP deficiency is eliminated, there no longer is a basis for EPA to make a positive finding under

section 126. (See sections II and III below for a more detailed discussion.) In the earlier rulemaking, we therefore concluded that emissions reductions sufficient to eliminate a section 110(a)(2)(D) SIP deficiency would also be sufficient to satisfy section 126.

The NO<sub>x</sub> SIP Call required SIP revisions eliminating the amount of emissions that contribute significantly to nonattainment in downwind States, the amount of emissions reductions corresponding to the quantity of emissions that could be eliminated by the application of highly cost-effective controls on specified sources in each upwind State. The section 126 remedy consequently called for the same set of highly cost-effective controls for the section 126 source categories, based on the record of the NO<sub>x</sub> SIP Call. We are adopting this same conceptual approach in today's rulemaking.

There are also parallels between our earlier section 126 action and this action with regard to timing of actions in the section 126 proceeding and in the closely-related interstate transport proceeding under section 110(a)(2)(D)(i). Because a section 126 finding turns on the existence of a section 110(a)(2)(D)(i) deficiency, in the May 1999 Section 126 Rule, we determined which petitions had technical merit, but we stopped short of granting the findings sought by the petitions. Instead, we stated that because we had promulgated the NO<sub>x</sub> SIP Call, as long as an upwind State remained on track to comply with that rule, EPA would defer making the section 126 findings (See 64 FR 28271–28272). Later judicial action staying the NO<sub>x</sub> SIP Call rule resulted in EPA granting the section 126 petitions at issue, but the new rule retained the basic linkage between section 126 and section 110(a)(2)(D)(i) by providing that EPA would withdraw the section 126 findings upon EPA approval of a SIP satisfying the emission reduction requirements of the NO<sub>x</sub> SIP Call rule or upon EPA's promulgation of a FIP that achieved the emissions reductions. [See 65 FR at 2683 and *Appalachian Power v. EPA*, 249 F. 3d 1032, 1039 (D.C. Cir., 2001).] Similarly, in our proposal on the North Carolina section 126 petition, we proposed to deny the section 126 petition if we approved SIPs which satisfied the emission reduction requirements of the CAIR, or if we promulgated a FIP which included the emission reduction requirements of the CAIR. (In today's final rule, we are denying the petition because we are promulgating FIPs concurrently with the final section 126 response, which FIPs eliminate the significant

<sup>3</sup> While the text of section 126 refers to section 110(a)(2)(D)(ii), this is a scrivener's error. Congress intended to refer to section 110(a)(2)(D)(i). (See 64 FR 28267.) The EPA's interpretation was upheld in *Appalachian Power Co. v. EPA*, 249 F. 3d 1032, 1040–44 (D.C. Cir. 2001).

contribution from upwind sources to North Carolina.)

Finally, in the earlier section 126 rule, EPA adopted as a remedy for section 126 a Federal NO<sub>x</sub> cap-and-trade program patterned after the model NO<sub>x</sub> cap-and-trade program that EPA developed for States as an option to meet their NO<sub>x</sub> SIP Call requirements. See 65 FR 2686. The EPA proposed the same approach for the North Carolina section 126 petition, in the event that EPA granted the petition.

#### 4. What Is the Clean Air Interstate Rule?

The EPA developed the CAIR to address interstate pollution transport with respect to the newly adopted PM<sub>2.5</sub> and 8-hour ozone NAAQS.

In the CAIR, based on air quality modeling analyses and cost analyses, EPA concluded that SO<sub>2</sub> and NO<sub>x</sub> emissions in certain States in the eastern part of the country, through the phenomenon of air pollution transport,<sup>4</sup> contribute significantly to PM<sub>2.5</sub> and/or 8-hour ozone nonattainment and maintenance problems in downwind States. The CAIR establishes emission reduction requirements for the affected upwind States under CAA section 110(a)(2)(D)(i). The affected States and the District of Columbia have until September 11, 2006 to adopt and submit SIP revisions to achieve these required reductions. The SIP revision must contain measures that will assure that sources in the State reduce their SO<sub>2</sub> and/or NO<sub>x</sub> emissions sufficiently to eliminate the amounts of SO<sub>2</sub> and NO<sub>x</sub> that contribute significantly to nonattainment downwind. Reducing upwind precursor emissions will assist the downwind PM<sub>2.5</sub> and 8-hour ozone areas in achieving and maintaining the NAAQS. Moreover, attainment will be achieved in a more equitable, cost-effective manner than if each nonattainment area attempted to achieve attainment by implementing local emissions reductions alone. The EPA specified that the CAIR emissions reductions be implemented in two phases. The first phase of NO<sub>x</sub> reductions starts in 2009 (covering 2009–2014) and the first phase of SO<sub>2</sub> reductions starts in 2010 (covering 2010–2014); the second phase of reductions for both NO<sub>x</sub> and SO<sub>2</sub> starts in 2015 (covering 2015 and thereafter). The emissions reduction requirements are based on controls that are known to be highly cost effective for EGUs; however, States have the flexibility to

determine what measures to adopt to achieve the necessary reductions. In the CAIR, EPA provided model SO<sub>2</sub> and NO<sub>x</sub> trading programs for EGUs that States can choose to adopt to meet the emissions reduction requirements in a flexible and highly cost-effective manner.

With the inclusion of Delaware and New Jersey in the CAIR PM<sub>2.5</sub> region, EPA estimates that the CAIR will reduce SO<sub>2</sub> emissions by 3.6 million tons in 2010 and by 3.9 million tons in 2015; and will reduce annual NO<sub>x</sub> emissions by 1.2 million tons in 2009 and by 1.5 million tons in 2015. (These numbers reflect the annual SO<sub>2</sub> and NO<sub>x</sub> requirements.) If all these States choose to achieve these reductions through EGU controls, then EGU SO<sub>2</sub> emissions in the affected States would be capped at 3.7 million tons in 2010 and 2.6 million tons in 2015;<sup>5</sup> and EGU annual NO<sub>x</sub> emissions would be capped at 1.5 million tons in 2009 and 1.3 million tons in 2015.

Based on the promulgated CAIR (70 FR 25162), EPA estimates that the required SO<sub>2</sub> and NO<sub>x</sub> emissions reductions would, by themselves, bring into attainment 52 of the 79 counties that are otherwise projected to be in nonattainment for PM<sub>2.5</sub> in 2010, and 57 of the 74 counties that are otherwise projected to be in nonattainment for PM<sub>2.5</sub> in 2015. The EPA further estimates that the required NO<sub>x</sub> emissions reductions would, by themselves, bring into attainment 3 of the 40 counties that are otherwise projected to be in nonattainment for 8-hour ozone in 2010, and 6 of the 22 counties that are projected to be in nonattainment for 8-hour ozone in 2015. In addition, the CAIR will improve PM<sub>2.5</sub> and 8-hour ozone air quality in the areas that would remain in nonattainment for those two NAAQS after implementation of the CAIR. Because of CAIR, the States with those remaining nonattainment areas will find it less burdensome and less expensive to reach attainment by adopting additional local controls. The CAIR will also reduce PM<sub>2.5</sub> and 8-hour ozone levels in attainment areas, providing significant health and environmental benefits in all areas of the eastern United States.

For a more complete description of the CAIR and its impacts, the reader is encouraged to review the preamble to the CAIR.

<sup>5</sup> It should be noted that the SO<sub>2</sub> trading program provides that sources may bank pre-2010 title IV SO<sub>2</sub> allowances to be used for compliance with CAIR. These provisions encourage sources to make early emission reductions and ease the transition to the CAIR SO<sub>2</sub> program, and as a result, emissions may not reflect the emission caps in any given year.

#### 5. What Are the Findings of Failure To Submit for the Section 110(a)(2)(D) Plans?

In a final rule published on April 25, 2005 (70 FR 21147), we made national findings that States have failed to submit SIPs required under section 110(a)(2)(D) to address interstate transport with respect to the 8-hour ozone and PM<sub>2.5</sub> NAAQS.

The April 25, 2005 findings started a 2-year clock for EPA to promulgate a FIP to address the requirements of section 110(a)(2)(D). Under section 110(c)(1), EPA may issue a FIP any time after such findings are made and must do so unless a SIP revision correcting the deficiency is approved by EPA before the FIP is promulgated. For States affected by CAIR, an approved SIP meeting the CAIR requirements would satisfy the requirement and turn off the FIP clock. As discussed below in section IV, EPA is today promulgating FIPs for States affected by the CAIR. However, EPA intends to withdraw the FIP in a State in coordination with approval of a SIP for the State that meets the CAIR requirements.

The findings do not start a sanctions clock pursuant to section 179 because the findings do not pertain to a part D plan for nonattainment areas required under section 110(a)(2)(I) and because the action is not a SIP Call pursuant to section 110(k)(5).

#### 6. What Are the Petitions for Reconsideration of the CAIR?

Following publication of the final CAIR, EPA received twelve petitions requesting reconsideration of certain aspects of the final rule. The EPA considered all issues raised in the petitions and decided to reconsider six issues. In the notice of proposed rulemaking for this rule, EPA announced its decision to reconsider one issue: the definition of “EGU” as it relates to certain solid waste incineration units. Subsequently, on December 2, 2005 (70 FR 72268), and December 29, 2005 (70 FR 77101), EPA published in the **Federal Register** notices announcing its decisions to reconsider five additional aspects of CAIR and requesting comment on those issues.

As part of this rule, EPA is taking final action on reconsideration of the definition of “EGU” as it relates to certain solid waste incineration units. As explained in sections VI.E and VII below, EPA has revised the definition of EGU to establish a specific exemption for certain solid waste incineration units.

In a separate notice signed today, EPA is taking final action on the five

<sup>4</sup> When we use the term “transport” we mean to include the transport of both fine particles (PM<sub>2.5</sub>) and their precursor emissions and/or transport of both ozone and its precursor emissions.



additional aspects of CAIR for which EPA granted petitions for reconsideration. The EPA also is taking final action today to deny the remaining issues raised in the twelve petitions for reconsideration. These actions are discussed in greater detail in the preamble for the notice of final action on reconsideration, titled "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule): Reconsideration" and all related documents are available in the docket for the CAIR (EPA-HQ-OAR-2003-0053).

#### *D. Summary of North Carolina's Section 126 Petition*

##### 1. What Sources Does the Petition Target?

The North Carolina petition requests reductions of certain emissions from large EGUs located in 13 States. With respect to the PM<sub>2.5</sub> NAAQS, the petition requests that EPA find that NO<sub>x</sub> and SO<sub>2</sub> emissions from large EGUs in 12 States (Alabama, Georgia, Illinois, Indiana, Kentucky, Michigan, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia) are significantly contributing to nonattainment in, or interfering with maintenance by, North Carolina. With respect to the 8-hour ozone NAAQS, the petition requests that EPA find that NO<sub>x</sub> emissions from large EGUs in 5 States (Georgia, Maryland, South Carolina, Tennessee, and Virginia) are significantly contributing to nonattainment in, or interfering with maintenance by, North Carolina (Petition, p.1).

The petition defines the term "EGUs" as all facilities meeting the criteria described in the proposal for the CAIR. (See 69 FR 4566, 4610; January 30, 2004.) In the proposal for the CAIR, we defined EGUs as "fossil-fuel fired boilers and turbines serving an electric generator with a nameplate capacity of greater than 25 megawatts (MW) producing electricity for sale." (Id.) (See sections VI.E. and VII of today's preamble for clarification of the EGU definition.)

##### 2. What Control Remedy Does the Petition Request?

In its petition, North Carolina states that compliance with the NO<sub>x</sub> and SO<sub>2</sub> emissions budgets in the proposal for the CAIR would satisfy the requirements of the petition. These emissions budgets were based on controls that are highly cost effective for EGUs [the highly cost effective control metric being a component of determining which emissions contribute significantly (see

*State of Michigan v. EPA*, 213 F.3d 663, 674–80 (D.C. Cir., 2000) (upholding consideration of cost as an aspect of significant contribution)]. North Carolina also states that it does not oppose the flexibility discussed by EPA (69 FR at 4622) to allow equivalent reductions from other source categories in given States, so long as those reductions are real and enforceable (Petition, p. 24).

In the CAIR, EPA provided model NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs for EGUs as control options for States to choose to meet the CAIR emissions reductions requirements. The trading programs allow interstate trading among sources in all States subject to the CAIR that adopt the programs. In its petition, North Carolina said it recognizes the value of allowing sources flexibility to reduce their emissions in the most cost-effective manner consistent with the statute. However, North Carolina expressed concerns about a regional trading program (Petition, pp. 25–28). We address this issue below in sections II and VI.

##### 3. What Is the Technical Support for the Petition?

To support its claim that EGUs outside North Carolina are contributing significantly to nonattainment and maintenance problems in the State, North Carolina relies largely on EPA's technical analyses for the proposed CAIR. Therefore, as discussed above, the petition targets sources in the same States that EPA linked to North Carolina in the proposed CAIR. As corroborative support, North Carolina cites analyses conducted by the Southern Appalachian Mountains Initiative (SAMI) on PM<sub>2.5</sub> transport, North Carolina's further evaluation of the SAMI's analyses, as well as back trajectory analyses performed by the North Carolina Division of Air Quality from PM<sub>2.5</sub> monitors in two counties. (See Petition, pp. 13–17.)

#### *E. What Is the Consent Decree on the Section 126 Rulemaking Schedule?*

On March 19, 2004, EPA received a petition from the State of North Carolina filed under CAA section 126. Section 126(b) requires EPA to make the requested finding, or to deny the petition, within 60 days of receipt. It also requires EPA to provide a public hearing before acting on the petition. In addition, EPA's action under section 126 is subject to the procedural requirements of section 307(d) of the CAA. [See section 307(d)(2)–(5).] One of these requirements is that EPA conduct notice-and-comment rulemaking. Section 307(d)(10) provides for a time

extension, under certain circumstances, for rulemakings subject to that provision. Specifically, it allows statutory deadlines that require promulgation in less than 6 months from proposal to be extended to not more than 6 months from proposal to afford the public and the Agency adequate opportunity to carry out the purposes of section 307(d). In an action published on May 26, 2004 (69 FR 30038), EPA extended the deadline for EPA to take action on the North Carolina petition by the full 6 months, to November 18, 2004.

On February 17, 2005, the State of North Carolina and the citizen's group Environmental Defense filed complaints against EPA seeking to compel EPA to take action on the State's section 126 petition: *State of North Carolina v. Johnson*, No. 5:05-CV-112 (E.D. N.C.) and *Environmental Defense v. Johnson*, No. 5:05-CV-113 (E.D. N.C.). The EPA, North Carolina, and Environmental Defense filed a proposed consent decree that would establish a schedule for EPA to act on the petitions. Pursuant to CAA section 113(g), the EPA solicited comments on the proposed consent decree, by notice dated March 2, 2005 (70 FR 10089). The comment period closed April 1, 2005 without EPA receiving negative comment. On May 9, 2005, the court entered a slightly modified version of the consent decree.

The schedule in the consent decree required EPA to sign a proposal to grant or deny the petition by August 1, 2005, a date EPA met. (See 70 FR 49746.) The consent decree also required EPA to hold a public hearing on the proposal during the week of September 12 in North Carolina, and EPA held hearings in Research Triangle Park, North Carolina and Washington, DC during that week. The EPA must also take final action to grant or deny the petition by March 15, 2006, and is doing so in this rule. With the signature of today's final response to the petition, EPA has thus fulfilled all the deadlines and provisions of the consent decree.

#### **II. What Is EPA's Legal and Analytical Approach for the Section 126 Petition?**

For the PM<sub>2.5</sub> NAAQS, EPA proposed to deny the petition with respect to sources in any State having an approved SIP meeting the CAIR emissions reductions requirements, and with respect to sources in any State for which EPA promulgated a FIP with those same emission reductions requirements. In either case, there would no longer be a violation of the prohibition in section 110(a)(2)(D)(i). Since a violation of that prohibition is a condition precedent for granting a section 126 petition, EPA



necessarily would deny the petition. (See 70 FR at 49716–49717.)

A number of commenters disagreed with EPA's approach. In their view, section 126 guarantees a particular result: reductions of emissions from designated upwind sources linked to North Carolina nonattainment or maintenance problems, which reductions are to occur within three years.

In the commenters' view, if an approved SIP or a FIP does not provide this result within the three year time frame stated in section 126(c), then EPA must grant the petition. Thus, the argument goes, EPA must find that certain sources significantly contribute to nonattainment problems in North Carolina regardless of whether there is a current violation of the section 110(a)(2)(D)(i) prohibition. The commenters maintain that the statute, case-law, and past EPA practice all compel their interpretation.

EPA disagrees. In our view, section 126 provides a mechanism forcing EPA to act, but does not force adoption of controls beyond those necessary to remove the underlying SIP deficiency which violates the prohibition of section 110(a)(2)(D)(i). In essence, section 126 provides States a means to force EPA to take action to reduce specific emissions when EPA has not taken the actions required by section 110(a)(2)(D)(i) to address significant contribution to downwind receptors, but does not force further action. It follows, therefore, that once EPA has taken action to eliminate the SIP deficiencies by approving SIPs which implement CAIR (*i.e.*, which eliminate the significant contribution), or itself promulgates a CAIR FIP for states with SIP deficiencies, there is no longer a cause of action under section 126.<sup>6</sup>

This interpretation is consistent with the text of the statute, which links action under section 126 inextricably with the existence of an underlying section 110(a)(2)(D)(i) SIP deficiency: “[a]ny State \* \* \* may petition the Administrator for a finding that any major source or group of stationary sources emits \* \* \* any air pollutant in violation of the prohibition of section 110(a)(2)(D)(i) [i]”<sup>7</sup> off this section”

<sup>6</sup> This analysis assumes that the facts underlying CAIR remain unchanged. If a Petition were to present new information showing, for example, that there is a different level of contribution than EPA analyzed in CAIR, compliance with CAIR would not automatically be determinative regarding whether upwind sources are emitting in violation of the section 110 (a)(2)(D)(i) prohibition. See 64 FR at 28274 n. 15 and *Appalachian Power*, 249 F.3d at 1067 (later developments can be the basis for another section 126 petition).

<sup>7</sup> As noted earlier, the statutory text refers to subsection (ii) of section 110(a)(2)(D), but this is a

(emphasis added). Case law likewise makes clear that EPA's determination of whether or not to grant a section 126 petition turns on whether SIPs are in violation of section 110(a)(2)(D)(i). *Appalachian Power v. EPA*, 249 F.3d 1032, 1045–46 (D.C. Cir. 2001). Similarly, in the rulemaking dealing with a section 126 petition in circumstances most analogous to those here (EPA's response to the Northeastern states' petition regarding interstate transport of ozone precursors, issued roughly contemporaneously with the NO<sub>x</sub> SIP Call), EPA stated that it “interprets section 126 to provide that a source is emitting in violation of the prohibition of section 110(a)(2)(D)(i) where the applicable SIP fails to prohibit (and EPA has not remedied this failure through a FIP) a quantity of emissions from that source that EPA has determined contributes significantly to nonattainment or interferes with maintenance in a downwind [S]tate” (64 FR at 28272; May 25, 1999). Thus, “[a]n upwind State and EPA may remedy this excessive interstate transport of air pollutants through adoption and approval of a SIP revision barring the emission of such pollutants. Alternatively, a downwind State and EPA may remedy this excessive interstate transport of air pollutants through the State petitioning EPA under section 126 and EPA regulating the sources directly” (65 FR 2680; January 18, 2000).

Commenters argued, however, that the reference in section 126(b) and (c) to “the prohibition of section 110(a)(2)(D) [(i)]” must be to the functional prohibition in section 110(a)(2)(D)(i), by which they mean a cessation of emissions that contribute significantly to nonattainment in a downwind state. Under this reading, a remedy under section 126 must entail emission reductions, not merely SIP revisions. EPA agrees that the prohibition referred to is the functional prohibition on significant contribution to downwind states, and therefore, for example, EPA cannot defer granting a section 126 petition merely because a state is under a legal obligation to revise its SIP. *Appalachian Power*, 249 F.3d at 1044. However, adoption of a SIP implementing CAIR (or EPA enacting a CAIR FIP) addresses the functional prohibition of section 110(a)(2)(D)(i) by eliminating the SIP deficiency triggering the prohibition through requirements on sources to eliminate the significant contribution to downwind receptors. Moreover, to the extent the commenters are maintaining that the ‘functional

scrivener's error. *Appalachian Power*, 249 F.3d 1032, 1040–44.

prohibition in section 110(a)(2)(D)(i)’ refers to some specific environmental result, such as North Carolina coming into attainment (see Comments of North Carolina Attorney General at 17), we disagree. EPA interprets “significant contribution” in the CAIR and in this proceeding to include both an emission component and a feasibility/cost-effectiveness component, so that what is prohibited are specific levels of emissions which can feasibly be reduced in a highly cost-effective manner. See also 65 FR at 2677 (applying cost effectiveness component of the significant contribution standard in granting a section 126 petition). Adoption of a CAIR SIP (or EPA adopting a CAIR FIP) fully addresses this prohibition.

In the same vein, other commenters argued that sections 110(a)(2)(D) and 126 are independent provisions, and that EPA is vitiating that independence by substituting a section 110 remedy for the section 126 remedy, the implication again being that section 126 commands an environmental result which must be effectuated once the section 110(a)(2)(D) prohibition is violated. EPA disagrees with the premise of the comment. Although the two provisions unquestionably may be applied independently, they are also closely linked in that a violation of the prohibition in section 110(a)(2)(D)(i) is a condition precedent for action under section 126 and, critically, that significant contribution is construed identically for purposes of both provisions (since the identical term naturally is interpreted as meaning the same thing in the two linked provisions). See *Appalachian Power*, 249 F. 3d at 1049–50. If EPA or a State has adopted provisions that eliminate the significant contribution to downwind states, then there simply is no violation of the section 110(a)(2)(D) prohibition. Moreover, since we interpret significant contribution to mean the same thing under both provisions, relief under section 126 to eliminate significant contribution must in any case mean eliminating those emissions which can feasibly be controlled in a highly cost-effective manner as defined in the CAIR. Put another way, requiring additional reductions would result in eliminating emissions which do not contribute significantly, an action beyond the scope of section 126.

Commenters further argued that relief under section 126 must occur within 3 years and therefore that the CAIR emission reductions do not satisfy

section 126 because although those reductions commence within 3 years they are phased in over a longer time. These comments assume that EPA must make the section 126 findings, however, in which case sources covered by the petition would indeed have to eliminate significant contribution within 3 years. But as just explained, a condition precedent to making section 126 findings is the existence of an underlying SIP deficiency, which EPA has chosen to address directly through action under section 110(a)(2)(D). Moreover, this choice is appropriate. As a result of today's action, not only will there be an approved SIP or a CAIR FIP in place requiring emission reductions which eliminate the significant contribution to North Carolina, but these reductions occur within 3 years, commencing in 2009 when NO<sub>x</sub> controls (a PM<sub>2.5</sub> precursor) are required (70 FR at 49718). This is similar to EPA's decisions in the parallel NO<sub>x</sub> SIP Call/section 126 rulemakings where EPA initially deferred making section 126 findings because there would be approved SIPs in place requiring elimination of significant contribution to downwind States with emission reductions to commence (although not be concluded) within the 3-year period (64 FR at 28275).<sup>8</sup> When the NO<sub>x</sub> SIP Call rule was judicially stayed, it was no longer appropriate to defer making the section 126 findings because there were no longer "explicit and expeditious deadlines for compliance with the NO<sub>x</sub> SIP Call" (65 FR 2680). Here, the certainty of SIP submissions (or action under a CAIR FIP) coupled with explicit and certain compliance deadlines calling for emissions reductions commencing in the same timeframe as the section 126 3-year window make it appropriate for EPA to utilize the section 110(a)(2)(D) remedy.

We note further that in arguing that EPA must order all emissions reductions from designated sources which contribute to North Carolina PM<sub>2.5</sub> nonattainment to occur within 3 years, commenters again ignore the feasibility/cost-effectiveness prong of the significant contribution test. EPA has found that the CAIR emissions reductions are highly cost effective based on the compliance schedule established in that rule, and further found that that compliance schedule is needed for reasons of technical

feasibility (70 FR at 25195–25229). Requiring those reductions to occur on a more rapid timeframe would thus require considerably more than merely eliminating significant contribution, and so would exceed the scope of section 126. Moreover, commenters presented no independent analysis showing that emission reductions from the designated sources could be obtained cost-effectively (or even feasibly) within 3 years.<sup>9</sup>

Commenters also argued that because a SIP (or the CAIR FIP) could (or in the case of the FIP, would) reflect a trading component, such a scheme would not satisfy section 126. The legal argument is that section 126 requires emission reductions to come from designated sources, a result not possible to guarantee under a trading regime. More basically, commenters stated that under a trading regime there was no certainty that there would be reduction of emissions to North Carolina, so that at the least, trading should be limited to sources designated in the petition as contributing significantly to nonattainment in North Carolina. These arguments again assume that EPA must grant the petition, which is not our view so long as the underlying SIP deficiencies are rectified, as explained above. The arguments also do not address the critical point that availability of trading options are part of the basis for EPA's findings that reductions are highly cost effective, and hence are an element of the finding that emissions contribute significantly to nonattainment.<sup>10</sup> The approach here is also consistent with the one EPA adopted initially in the NO<sub>x</sub> SIP Call/section 126 rulemaking, where EPA deferred granting section 126 petitions based on the existence of the NO<sub>x</sub> SIP Call remedy, which included a trading

scheme across the entire region. 63 FR at 56309–320; see generally 64 FR at 28307–309 (appropriateness of trading as a section 126 remedy). Indeed, as noted earlier, EPA adopted a trading scheme when granting that earlier section 126 petition. See 65 FR at 2686; see also *Appalachian Power*, 249 F. 3d at 1039 noting that EPA's section 126 rule included a cap-and-trade program. Further discussion of issues relating to the trading regime are found in section VI.B of this preamble.

Some commenters also challenged EPA's basis for proposing to deny the petition with respect to ozone. EPA did so because no area in North Carolina is projected to be in nonattainment with the ozone 8-hour NAAQS in the CAIR base case and therefore upwind states would (by definition) not be contributing significantly to North Carolina nonattainment (70 FR at 25162). Commenters argued that EPA is obligated to consider current conditions, and not base findings on future conditions, because some areas in North Carolina are presently in nonattainment. They base this argument on the use of the present tense in section 126(b) ("emits or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)(i)"), plus equitable consideration of the need to address existing pollution problems.

EPA disagrees. With respect to the statutory language, both section 126(b) and 110(a)(2)(D)(i) do not specify the time by which EPA must evaluate significance of contribution. Indeed, section 110(a)(2)(D)(i) is written exclusively in the future tense, and the reference to "emits or would emit" in section 126(b) is naturally read as making clear that controls can apply to both existing and new sources. See *Appalachian Power*, 249 F. 3d at 1056–57. Moreover, it makes sense for significant contribution determinations to be based on conditions at the time at which potential controls are contemplated. Suppose, for example, that due to future rules (a clutch of effective mobile source controls, for example) it can reliably be predicted that an area will be in attainment although it is not so presently. We do not believe that the statute mandates immediate assessment of interstate contribution to address a nonattainment problem that will no longer exist at the time controls on the interstate emissions would be implemented. EPA thus has consistently adopted this future-looking approach when assessing interstate transport, and believes it reasonable to continue doing so here. See 63 FR at 57375 (adopting this approach in NO<sub>x</sub> SIP Call).

<sup>9</sup> The petitioner (in its comments on the proposal) stated that "[c]ontrols for sources contributing to nonattainment in North Carolina would be cost effective. EPA concluded as much in the Proposed CAIR Rule \* \* \*. There is nothing in the Final CAIR Rule that indicates that adding North Carolina to the list of downwind states would 'break the bank' on cost effectiveness." Comments of North Carolina Attorney General at p. 30 n. 16. This statement does not address whether controls on upwind sources would be cost effective (or feasible) in timeframes more rapid than those found to be cost effective and feasible in the CAIR.

<sup>10</sup> Indeed, the Petition relies on EPA's analysis of what constitutes significant contribution, which, as just noted, includes an assumption that sources participate in a trading scheme to achieve highly cost-effective emission reductions. The Petition presents no independent analysis of what would constitute a significant contribution in the absence of a trading program. It is thus illogical for the Petition to argue that sources must eliminate all significant contribution (of which trading is a necessary element) but must do so without a trading program.

<sup>8</sup> Commenters asserted that all emissions reductions under the SIP Call would have occurred within the three-year period, but this is not the case. The date for achieving the budgets provided by the SIP Call (*i.e.*, the full panoply of annual emission reductions) was 2007, six years from the rule's promulgation date. See 63 FR at 57450.

Finally, commenters argued that EPA had ignored the statutory requirement in section 110(a)(2)(D)(i) (incorporated within section 126(b) and (c)) to prohibit interstate transport that “interfere[s] with maintenance” by North Carolina of the 8-hour ozone NAAQS. They further stated that a number of North Carolina counties projected to attain the ozone NAAQS are modeled to do so by narrow margins that should be deemed to fall within the interfere with maintenance test based on modeling uncertainties and historic ozone variability patterns in the counties in question.

EPA stated in the CAIR rule that it would apply the interfere with maintenance provision in section 110(a)(2)(D) in conjunction with the significant contribution to nonattainment provision and so did not use the maintenance prong to separately identify upwind States subject to CAIR (70 FR at 25193). EPA did this so as not to give the interfere with maintenance requirement greater weight than the significant contribution requirement, thus avoiding giving greater weight to the potentially lesser environmental effect. (See CAIR Response to Comments Response at p. 63.) EPA’s reading also promotes a reasonable balance between controls on upwind states and in-state controls, an important objective in applying the section 110 and 126 interstate transport provisions. (See 70 FR at 25193.) Suppose, for example, that a downwind area is projected to attain by the effective date of potential section 110(a)(2)(D) (or section 126(b)) controls, so that those controls are unnecessary to prevent significant contribution to nonattainment. Applying controls on upwind sources in these circumstances not only could be environmentally unnecessary, but could even create a perverse incentive for downwind states to increase local emissions.<sup>11</sup>

<sup>11</sup> In this case, the three North Carolina counties mentioned in comments as warranting upwind reductions to maintain attainment status, are not only projected to be in attainment in 2010 in both the base case and the CAIR case (considering emission reductions occurring under CAIR to prevent significant contribution) and the 2015 base case and CAIR case. In fact, in 2015, these counties (Mecklenburg, Rowan, and Wake) are projected to be attaining by comfortable margins. CAIR Modeling TSD App. E Table E-1 (projected levels of 75.0 ppb, 74.1 ppb, and 70.8 ppb respectively in the 2015 CAIR case, which are all below the levels (3–5 ppb) EPA considered to raise maintenance concerns in the CAIR. These projections do not consider the effect of local controls other than those already enacted. Projected levels in the 2015 base case, *i.e.* without CAIR and without further local controls, are likewise comfortably below the levels which could raise likely possibility of returning to nonattainment. (It is reasonable to defer consideration of maintenance issues until 2015 in this analysis because the CAIR remedy is in two

We note further that even if (against our view) the interference with maintenance standard were to be applied in cases where there is no evidence of significant contribution to nonattainment, EPA would still interpret the standard as requiring consideration of cost and technical feasibility since EPA already considers these factors as aspects of significant contribution, and it would make little sense to interpret the interfere with maintenance language (the lesser environmental effect) as allowing reductions without considering those same factors. See also 63 FR 57370 (interfere with maintenance must also reflect significant contribution to be cognizable under section 110 remedies for interstate transport. Moreover, given that maintenance addresses the less significant environmental effect, EPA would likely require that emission reductions be no less highly cost effective than those which significantly contribute to nonattainment, and might require that reductions be even more highly cost effective. It is thus difficult to see that further emission reductions than those already required under CAIR would be warranted.

### III. What Is EPA’s Final Action on the Section 126 Petition?

In determining whether emissions from EGUs in the States named in the North Carolina section 126 petition contribute significantly to 8-hour ozone and/or PM<sub>2.5</sub> nonattainment and maintenance problems in North Carolina, EPA is relying on the conclusions drawn in the final CAIR. As discussed in section I above, North Carolina based its petition in large part on the analyses for the proposed CAIR—identifying EGUs in the same upwind States that EPA proposed to link to North Carolina. The EPA conducted new modeling analyses using updated emissions inventories for the final CAIR. The EPA also applied a different value for the threshold contribution level for the air quality portion of the significant contribution determination for PM<sub>2.5</sub> in the final CAIR. Therefore, the upwind State-to-downwind State linkages differed in the final CAIR from the proposal.

parts. There thus will be further emission controls of NO<sub>x</sub> between 2010 and 2015 as a result of CAIR which could subsume any controls adopted for maintenance reasons.) EPA thus in any case does not believe that further reductions from upwind sources is needed to maintain the 8-hour ozone standard in these counties, and that such emission reductions would not reasonably balance upwind and local controls. See also Response to Comment Document addressing these factual issues.

#### A. What Is EPA’s Final Action With Respect to the 8-Hour Ozone NAAQS?

In its petition, North Carolina requested that EPA make findings that large EGUs in Georgia, Maryland, South Carolina, Tennessee, and Virginia contribute significantly to nonattainment in, or interfere with maintenance by, North Carolina with respect to the 8-hour ozone NAAQS. In the proposed CAIR, EPA linked these States to 8-hour ozone air quality problems in Mecklenburg County, North Carolina. In the final CAIR, EPA’s updated analyses project all of North Carolina to be in attainment for 8-hour ozone in the CAIR 2010 base case. Therefore, EPA did not link any upwind States to North Carolina with respect to the 8-hour ozone NAAQS in the final CAIR (See CAIR preamble, Table VI–9 at 70 FR at 25249). Consequently, EPA is denying the section 126 petition with respect to the 8-hour ozone NAAQS.

#### B. What Is EPA’s Final Action With Respect to the PM<sub>2.5</sub> NAAQS?

In its petition, North Carolina also requested that EPA make findings that large EGUs in Alabama, Georgia, Illinois, Indiana, Kentucky, Michigan, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia and West Virginia contribute significantly to nonattainment in, or interfere with maintenance by, North Carolina with respect to the PM<sub>2.5</sub> NAAQS. In the proposed CAIR, these 12 States were linked to PM<sub>2.5</sub> nonattainment problems in North Carolina. In the final CAIR, as noted, EPA used different, updated modeling and also applied a 0.2 (μ/m<sup>3</sup>) contribution threshold level rather than the proposed 0.15 (μ/m<sup>3</sup>) for the air quality portion of the significant contribution determination (70 FR 25190–25191). Based on the updated modeling and the 0.2 (μ/m<sup>3</sup>) contribution threshold level, EPA determined in CAIR that only the following 10 States are significantly contributing to PM<sub>2.5</sub> air quality problems in North Carolina: Alabama, Georgia, Indiana, Kentucky, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia (see preamble Table VI–8; 70 FR at 25248–25249). This means for purposes of section 126(b) that sources within these States for which EPA determined highly cost-effective controls are available are also contributing significantly to PM<sub>2.5</sub> nonattainment problems in North Carolina.

In determining what action to take in response to the PM<sub>2.5</sub> portion of the section 126 petition, EPA is taking into consideration the CAIR FIPs that are being promulgated today in conjunction

with the section 126 action (see section IV below). The FIP action establishes control requirements for each of the States affected by the CAIR in order to achieve the emissions reductions required to address interstate transport.

In the proposal for the section 126 action, for EGUs in States linked to North Carolina in CAIR (and therefore, for which EPA proposed a FIP), EPA proposed in the alternative (1) to deny the petition if EPA issued the final FIPs to address the interstate transport no later than the final section 126 response or (2) to grant the petition and make section 126 findings if EPA did not promulgate the FIPs prior to or concurrently with the final section 126 response. Because the FIPs would fully address the PM<sub>2.5</sub>-related interstate transport problem identified in CAIR and thus eliminate the section 110(a)(2)(D) violation, there would no longer be a basis for the section 126 findings. In today's action, EPA is finalizing the CAIR FIPs. Therefore, EPA is denying the section 126 petition for EGUs in States linked to North Carolina for PM<sub>2.5</sub>.

For EGUs located in Illinois and Michigan, which are not linked to North Carolina in the final CAIR with respect to the PM<sub>2.5</sub> NAAQS (70 FR 25247–25248), EPA is also denying the petition.

#### IV. What Is the Federal Implementation Plan for the CAIR?

##### A. What Is the Legal Framework for the FIPs?

Section 110(c)(1) of the CAA requires the Administrator 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. The EPA may issue a FIP any time after making one of these findings or the Agency may issue a SIP disapproval. However, EPA is relieved of the obligation to promulgate the FIP if a SIP revision correcting the deficiency identified is approved by EPA before such a FIP is promulgated.

As discussed in paragraph I.D.5, in a final rule signed the same day as CAIR, EPA found that States have failed to submit SIPs to satisfy the interstate transport requirement under section 110(a)(2)(D)(i) of the CAA for the PM<sub>2.5</sub> and 8-hour ozone NAAQS (70 FR 21147). These findings started the 2-year clock for the promulgation of a FIP. They did not start a “sanctions clock” as there are no mandatory sanctions

associated with the FIP or the finding of State failure to submit SIPs to satisfy 110(a)(2)(D)(i).

The EPA's authority to act when it has identified deficiencies in SIPs is derived from multiple sources. First, EPA may promulgate any measure which it is permitted to issue pursuant to pre-existing independent statutory authority—for example, the 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 in accordance with this provision, and the CAA more broadly, to cure a SIP deficiency. Third, under section 110(c), the courts have held that EPA may exercise all authority that the State may exercise under the CAA.

The first type of authority, EPA's general authority, is independent of section 110(c). It is not dependent on or altered by finding a deficiency in a SIP.

The second type of authority, EPA's general authority under section 110(c), is essentially remedial. The 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 in accordance with section 110(c), and the CAA more broadly. 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)).

Third, the same authority that is exercised by the States under the CAA in connection with the adoption, implementation, and enforcement of a SIP may be assumed to be available to the EPA when the agency issues a FIP, after determining that a State has not adopted a satisfactory SIP. As the Ninth Circuit has held, when EPA acts in place of the State pursuant to a FIP under section 110(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).

In the case of Federally-recognized Indian Tribes, as we explained in the CAIR, (70 FR 25167–25168) Tribes are subject to section 110(a)(2)(D), but are not required to submit implementation plans. The EPA is required to promulgate FIPs for Indian country as necessary or appropriate to protect air quality. See 40 CFR 49.11(a). Presently, there are no emissions sources in Indian country within the region affected by CAIR which would make a FIP necessary or appropriate. In the event of the planned construction of such a source within Indian country in the 28-State region subject to CAIR, EPA will work with the relevant Tribal government to regulate the source through a Tribal or Federal implementation plan. In the case of an EGU, the EPA anticipates that the Tribal implementation plan (TIP) or FIP would involve the participation of the EGU in the EPA administered cap-and-trade program. The EPA will also work with the Tribe and affected States to determine how allowances allocated to the Indian country source will affect State allowance allocations. Because any FIPs for Indian country will necessarily be tailored to the specific circumstances, today's action contains no such FIP. The reader is referred to the CAIR for a more detailed discussion of the potential impact of the CAIR in Indian country (70 FR 25167–25168, 25315).

##### B. What Is the Timing and Scope of the CAIR FIP Actions?

As described in the CAIR, EPA views seriously its responsibility to address the issue of regional transport. Decreases in NO<sub>x</sub> and SO<sub>2</sub> emissions are needed in the States identified in the CAIR to enable downwind States to develop and implement plans to achieve and maintain the PM<sub>2.5</sub> and 8-hour ozone NAAQS. The CAIR identified the amount of emissions reductions necessary for each State identified in the CAIR to meet their section 110(a)(2)(D) interstate transport obligations. Implementation of these reductions is necessary to help downwind States to achieve the NAAQS in order to provide clean air for their residents.

Therefore, EPA is promulgating FIPs today in conjunction with the action responding to North Carolina's section 126 petition concerning transport of

PM<sub>2.5</sub> and 8-hour ozone. The EPA is promulgating these FIPs at the same time as its response to North Carolina's section 126 petition, which is required to be finalized no later than March 15, 2006 in accordance with a judicially-enforceable consent decree. The EPA believes it is appropriate to coordinate these two actions because they both address interstate transport, both apply to EGUs, and because the States of concern in the section 126 petition are a geographical subset of the States covered by CAIR. Promulgating the CAIR FIPs at this time provides a backstop of Federal controls for all States covered by CAIR for PM<sub>2.5</sub> and/or 8-hour ozone, not just those States that significantly contribute to North Carolina for PM<sub>2.5</sub>. This provides a level playing field, giving assurance to all the affected downwind States that the upwind emissions reductions required under CAIR will be achieved on time. Further, EPA believes that the CAIR reductions are best implemented as a unified program. The EPA believes that States will submit SIP revisions implementing the CAIR reductions in their States in a unified manner, and that this reduces workload for the States and provides sources with more certainty. Finally, promulgating the 8-hour ozone FIP as well as the PM<sub>2.5</sub> FIP as early as possible gives States more flexibility to take advantage of the abbreviated SIP option discussed below and in section VI.C. This could further reduce workload for States to meet the requirements of CAIR. In today's action, EPA is not promulgating FIPs for any States not covered by CAIR.

The Agency is taking this action to provide a Federal backstop for CAIR where all States may not be able to develop and submit timely, approvable SIP revisions. In no way should the FIP for CAIR be viewed as a sign of any concern about States ultimately making the emission reductions required under CAIR. There are no sanctions associated with today's rule, and EPA does not intend CAIR FIPs to have any negative consequences for the affected States. To the contrary, EPA is finalizing FIP approaches that are flexible and allow States a full opportunity to get their SIP revisions in place, with minimal disruption in transitioning from Federal to State implementation.

Moving quickly to promulgate a FIP is consistent with Congress' intent that attaining the standard occurs in these downwind nonattainment areas "as expeditiously as practicable" (sections 181(a) and 172(a)(2)(B)). The FIP will help ensure that all emissions reductions required by CAIR, and the associated environmental benefits, will

be achieved by the CAIR deadlines. In addition, the FIP will ensure that sources in all States covered by CAIR, regardless of whether they were included in the North Carolina section 126 petition, will be required to achieve emissions reductions at the same time.

By finalizing the FIP well before the deadline for States to submit their CAIR SIPs, EPA is providing States an additional option for complying with the requirements of CAIR. States planning to adopt the model trading programs contained in the CAIR rule, can accept the FIP and significantly reduce the State resources needed to establish a program to implement the CAIR. Since there are no punitive consequences for States associated with the FIP or the finding of failure to submit SIPs to satisfy section 110(a)(2)(D)(i), some States could avoid much of the time and expense of revising their SIPs to comply with CAIR. Some States, particularly those subject to the NO<sub>x</sub> SIP Call, may need to prepare minor SIP revisions regardless of whether they accept the FIP implementing the requirements of CAIR; yet the time and expense involved would be significantly reduced.

The EPA is finalizing, with certain changes described in section VI.C, the approach that a State can choose to modify the application of the CAIR FIP through abbreviated SIP revisions. The abbreviated SIP revisions approach covers specific elements of the FIP trading programs without submitting full SIP revisions to meet the requirements of CAIR. By accepting such abbreviated SIP revisions, EPA is providing additional options for States to comply with CAIR. A State can choose to retain control of these specific elements of the trading programs, without submitting a full SIP revision to meet the requirements of CAIR. As there are no sanctions associated with the FIP, EPA anticipates that some States will prefer to avoid spending the time and money necessary to submit a full SIP revision.

The Agency will accept abbreviated SIP revisions for any or all of the following four specific elements of the FIP trading programs: (1) Provisions for otherwise unaffected units to opt-in to the FIP trading programs, (2) allocating annual and/or ozone season NO<sub>x</sub>, (3) allocating allowances from the annual NO<sub>x</sub> Compliance Supplement Pool (CSP), and (4) including NO<sub>x</sub> SIP Call trading sources that are not EGUs under CAIR in the Federal CAIR ozone season NO<sub>x</sub> cap-and-trade program. Upon approval of any such SIP revisions, EPA anticipates that the corresponding portions of the FIP for that State would

be replaced or their application to sources would be modified.

In offering a framework for abbreviated SIP revisions, the Agency anticipates that many States will wish to retain control over the allocation of allowances. Additionally, the Agency recognizes that States may wish to meet their NO<sub>x</sub> SIP Call obligations by allowing NO<sub>x</sub> budget units (that is, units in the NO<sub>x</sub> SIP Call trading program) that are not EGUs under CAIR to participate in the CAIR ozone season trading program.

In its proposal, the EPA invited comment on the option for States to submit abbreviated SIPs covering specific elements of the Federal trading programs. A more complete discussion of the proposed abbreviated SIP provisions and the comments received is found in section VI of today's preamble.

Thus, the FIP will increase the options available for a State to comply with CAIR. Through the CAIR rulemaking actions, EPA has provided States with a great deal of data and analyses concerning air quality and control costs, as well as a determination whether upwind sources contribute significantly to downwind nonattainment under section 110(a)(2)(D). The EPA recognizes that States would face great difficulties in developing transport SIPs to meet the requirements of section 110(a)(2)(D) without these data and policies. Indeed, EPA acknowledged in the CAIR that the Agency's extensive analyses and data, including the multi-year operation of a federally-funded monitoring system (and the considerable information generated through that system) was a necessary element in the Agency's conclusion that it was appropriate to impose such requirements on States (70 FR 25267).

States have 18 months from the signature date of the CAIR, or until September 11, 2006, to develop, adopt, and submit revisions to their SIPs that meet the requirements of CAIR. The EPA will withdraw the FIP once EPA approves a SIP that meets the CAIR requirements in that State.

Having the FIP in place early provides for a transition to a CAIR trading program with the greatest continuity, administrative ease, and cost savings for States that would otherwise develop a program identical to the model trading programs. The EPA's goal is to have approvable programs in place that meet the requirements of the CAIR whether they are in the form of a SIP or a FIP. By finalizing a FIP today, EPA in no way precludes a State from developing its own SIP to either adopt the trading

rules with any discretionary elements allowed by the CAIR or from meeting the State emissions budget through different measures of the State's choosing. The EPA has considered the timing of each element of the FIP process to make sure to preserve each State's freedom to develop and implement SIPs. In this way, EPA has enhanced each State's options for complying with the requirements of the CAIR while ensuring that all the emissions reductions and environmental benefits of the CAIR are realized.

#### *C. What Are the 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 sources and assure compliance with those measures. Thus, while the FIP is designed by EPA to achieve the same total emissions reductions described in the CAIR, the specific control measures assigned in the FIP may be different from what a State might choose.

In selecting the control measures for the FIP, EPA is adopting the same measures used in the CAIR for calculating the required emissions reductions. In the CAIR, EPA is requiring States to achieve specified levels of emissions reductions based on levels that are achievable through implementation of highly cost-effective controls on EGUs. See the discussion in section IV of the CAIR, "What Amounts of SO<sub>2</sub> and NO<sub>x</sub> Emissions Did EPA Determine Should Be Reduced?" 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 CAIR.

The SO<sub>2</sub> and NO<sub>x</sub> cap-and-trade programs for the FIP are discussed below in section VI. The unit NO<sub>x</sub> allocations will be provided in a later action and will meet the State EGU budgets that are established in the CAIR for States that choose to meet the required emissions reductions by controlling EGUs only.

#### *D. When and How Will EPA Remove the FIP Requirements if EPA Approves a SIP To Meet the CAIR?*

As discussed previously, EPA is finalizing the FIP today concurrently with EPA's response to the section 126 petition from North Carolina. The EPA intends to withdraw the FIP in a State in coordination with EPA's approval of a SIP for that State that meets the CAIR requirements. It is EPA's preference that

States regulate sources to control the interstate transport; therefore, EPA will work with States to help ensure that the FIP would not need to be implemented.

The EPA intends to withdraw the FIP requirements as soon as practical after receiving approvable CAIR SIP revisions. The EPA will work with States to ensure a timely withdrawal of the FIP and recording of State NO<sub>x</sub> allocations in source accounts (for States choosing to allocate NO<sub>x</sub> allowances). A more detailed discussion of the timing for recording allocations is found in section VI.F.1 of this preamble.

### **V. Emission Reduction Requirements for the CAIR FIP**

#### *A. Introduction*

In the CAIR (70 FR 25162), EPA determined that SO<sub>2</sub> and NO<sub>x</sub> emissions from sources in the District of Columbia and the following 23 States contribute significantly to downwind PM<sub>2.5</sub> nonattainment: Alabama, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.

In a separate rulemaking signed the same day as this action, EPA finds that SO<sub>2</sub> and NO<sub>x</sub> emissions from sources in Delaware and New Jersey also contribute significantly to downwind PM<sub>2.5</sub> nonattainment.

In the CAIR, the Agency also determined that the District of Columbia and the following 25 States contribute significantly to downwind 8-hour ozone nonattainment: Alabama, Arkansas, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin.

The EPA established CAIR annual SO<sub>2</sub> and NO<sub>x</sub> emission reduction requirements for States that contribute significantly to downwind PM<sub>2.5</sub> nonattainment and established NO<sub>x</sub> ozone season emission-reduction requirements for States that contribute significantly to downwind 8-hour ozone nonattainment. The CAIR requires upwind States to revise their SIPs to include control measures to reduce emissions of SO<sub>2</sub> and/or NO<sub>x</sub> to meet the requirements in CAIR (SO<sub>2</sub> is a precursor to PM<sub>2.5</sub> formation, and NO<sub>x</sub> is a precursor to both ozone and PM<sub>2.5</sub> formation).

The CAIR requires that the emission reductions be implemented in two phases. The first phase of CAIR NO<sub>x</sub> reductions starts in 2009 (covering 2009–2014) and the first phase of CAIR SO<sub>2</sub> reductions starts in 2010 (covering 2010–2014); the second phase of CAIR reductions for both NO<sub>x</sub> and SO<sub>2</sub> starts in 2015, covering 2015 and thereafter.

In CAIR, EPA determined the extent of reductions required to eliminate significant contribution (*i.e.*, to remove the section 110(a)(2)(D) violation). EPA interprets significant contribution as a specific level of emissions that can be feasibly reduced in a highly cost-effective manner. The required reductions are expressed as statewide budgets of SO<sub>2</sub> and NO<sub>x</sub> emissions. Regionwide emissions trading programs for large EGUs (within the constraints of the emissions caps based on these statewide emission budgets<sup>12</sup>) provide one option for eliminating significant contribution and thus also eliminating the section 110(a)(2)(D) violation. The violation is eliminated once a State adopts a SIP containing the CAIR trading programs (or a SIP containing other emission reduction options meeting the requirements specified in CAIR), or EPA promulgates a FIP to achieve those same reductions. The CAIR includes model rules for regionwide EGU SO<sub>2</sub> annual, NO<sub>x</sub> annual, and NO<sub>x</sub> ozone season emission cap-and-trade programs. States can choose to adopt these model rules (the CAIR SIP model trading rules) to obtain the required reductions in a flexible and cost-effective manner.

Today, EPA is finalizing FIPs that implement the emission reduction requirements of the CAIR in all States covered by CAIR. The Agency is promulgating today's FIPs to provide a federal backstop for CAIR.

EPA decided to adopt, as the FIP for each State in the CAIR region, the SIP model trading programs in the final CAIR, modified slightly to allow for federal instead of State implementation.<sup>13</sup> The specific requirements of the FIP trading programs are explained in greater detail in section VI below.

The CAIR FIPs will require SO<sub>2</sub> annual and NO<sub>x</sub> annual emission

<sup>12</sup> It should be noted that the SO<sub>2</sub> trading program provides that sources may bank pre-2010 title IV SO<sub>2</sub> allowances to be used for compliance with CAIR. These provisions encourage sources to make early emission reductions and ease the transition to the CAIR SO<sub>2</sub> program, and as a result, emissions may not reflect the emission caps in any given year.

<sup>13</sup> Today's action includes revisions to the CAIR SIP model rules as described in section VII in this preamble. For the FIP trading programs the Agency adopts the SIP model rules as finalized today and modified for federal implementation.



reductions from EGUs in States contributing significantly to PM<sub>2.5</sub> nonattainment and NO<sub>x</sub> ozone season emission reductions from EGUs in States contributing significantly to ozone nonattainment through participation in the regionwide cap-and-trade programs. The requirements of these trading programs were developed in the SIP model trading rules. The SIP model trading rules provide flexibility to the implementing organization only in certain specific areas. In adopting these model trading programs as FIPs, the Agency adopts the requirements of the model trading rules. As the implementing organization, therefore, it has only the same flexibility that is available to States that choose to implement the model trading programs.

The CAIR FIP trading programs will achieve the emission reductions required by CAIR by the deadlines established in that rule, with the same highly cost-effective EGU control measures forming the basis for the emission budgets. The regionwide emission reduction requirements, State emission budgets and trading rules that are the basis for today's FIPs were established in the final CAIR rule. They were developed through a process that involved significant public participation. In the CAIR rulemaking, EPA determined that the CAIR emission reduction requirements can be met in a highly cost-effective manner using regionwide SO<sub>2</sub> and NO<sub>x</sub> cap-and-trade programs for large EGUs (70 FR 25195–25229). The incentives provided by such regionwide cap-and-trade programs encourage economically efficient compliance over the entire region.

The applicability provisions of the FIPs promulgated in today's final rule, which cover large EGUs, are identical to the applicability provisions in the CAIR SIP model rules including the revisions finalized today. See sections VI.E and VII in today's preamble for detailed discussion of applicability. The FIPs and the CAIR SIP model rules apply to large EGUs because EPA determined that their emissions can be reduced through the application of highly cost-effective controls (70 FR 25195–25229).

During development of the CAIR, the Agency considered the interactions between the existing title IV Acid Rain Program and the new CAIR (see the preamble to the final CAIR for discussion, 70 FR 25290). As explained in CAIR, "In the absence of an approach for taking account of the title IV program, a new program (*i.e.*, the CAIR) that imposes a significantly tighter cap on SO<sub>2</sub> emissions for a region encompassing most of the sources and

most of the SO<sub>2</sub> emissions covered by title IV would likely result in a significant excess in the supply of title IV allowances, a collapse of the price of title IV allowances, disruption of operation of the title IV allowance market and the title IV SO<sub>2</sub> cap-and-trade system, and the potential for increased SO<sub>2</sub> emissions." These impacts would undermine the efficacy of the title IV program and could erode confidence in emissions trading programs in general. For these same reasons, today's FIP SO<sub>2</sub> trading program is integrated with the title IV program (see discussion of FIP SO<sub>2</sub> trading program in section VI, below). EPA was petitioned for and granted reconsideration of CAIR on claims that inequities result from applying the SO<sub>2</sub> allocation methodology (which is based on title IV allocations). In the notice of final action on reconsideration, signed the same day as this action, EPA decided not to alter the approach taken in the final CAIR (see further discussion of reconsideration in section VI.G, below).

Today's FIPs implement the CAIR emission reduction requirements by adopting the CAIR SIP model trading rules; the FIPs do not develop new emission reduction requirements or trading programs. For these reasons, the Agency did not re-open in the FIP rulemaking any elements of the reduction requirements and trading programs (except for the elements such as NO<sub>x</sub> allocations and opt-ins where States had flexibility) that were determined in the CAIR NFR and that were not modified by today's rule. By adopting as FIPs the CAIR SIP model trading programs, the Agency intends to implement the requirements of CAIR in a highly cost-effective manner and to ease the transition for sources that might initially be covered by the FIP programs and subsequently be covered by SIP programs that also adopt the model trading rules.

The Agency is promulgating these FIPs to provide a Federal backstop for CAIR. In no way should the FIPs be viewed as a sign of any concern about States ultimately making the emission reductions required under CAIR. There are no sanctions associated with today's rule, and EPA does not intend CAIR FIPs to have any negative consequences for the affected States. To the contrary, EPA is finalizing FIP approaches that are flexible and allow States a full opportunity to get their SIP revisions in place, with minimal disruption in transitioning from Federal to State implementation.

### *B. Regionwide SO<sub>2</sub> and NO<sub>x</sub> Caps*

Today's final rule provides a federal backstop for achieving the CAIR emission reduction requirements. Today's rule does not establish those reduction requirements, which were established in the CAIR rulemaking.

In the preamble to the CAIR NFR, the Agency explained how it determined regionwide SO<sub>2</sub> and NO<sub>x</sub> emissions caps. See section IV in the CAIR NFR preamble (70 FR 25195–25229). The EPA also summarized the process for determining the regionwide CAIR SO<sub>2</sub> and NO<sub>x</sub> emissions caps in the preamble to the proposed CAIR FIP (70 FR 49722). The CAIR FIP proposal did not reopen for public comment EPA's determination of the CAIR regionwide caps or the caps themselves. The EPA received a few comments on the CAIR regionwide caps during the public comment process on the proposed FIP. Those comments are not within the scope of today's final rule. As discussed above, in today's FIP rule the Agency is implementing the emission reduction requirements (including regionwide SO<sub>2</sub> and NO<sub>x</sub> caps) that EPA developed in the CAIR rulemaking through a process that included extensive public participation.

The CAIR regionwide caps (including the States of Delaware and New Jersey) are: for SO<sub>2</sub>, 3.7 million tons and 2.6 million tons in 2010 and 2015, respectively; for NO<sub>x</sub> annual, 1.5 million tons and 1.3 million tons in 2009 and 2015, respectively; for NO<sub>x</sub> ozone season, 0.6 million and 0.5 million tons in 2009 and 2015, respectively.

### *C. State SO<sub>2</sub> Emission Budgets*

In the preamble to the final CAIR, the EPA explained how it determined CAIR State annual SO<sub>2</sub> emission budgets (see section V.A.1.a of the CAIR NFR preamble, 70 FR 25229–25230; see also the rulemaking, signed the same day as this action, to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub>). The EPA also summarized the process for determining CAIR State SO<sub>2</sub> budgets in the preamble to the proposed FIP (70 FR 49723). The CAIR FIP proposal did not reopen for public comment EPA's determination of the CAIR State SO<sub>2</sub> budgets or the budgets themselves. As discussed above, in today's FIP rule, the Agency is implementing the emission reduction requirements (including State SO<sub>2</sub> emission budgets) that EPA developed in the CAIR rulemaking through a process that included extensive public participation.

Today's final FIP rule will achieve the required SO<sub>2</sub> emission reductions



through a regionwide SO<sub>2</sub> cap-and-trade program for EGUs. As discussed further in section VI, below, the CAIR FIP SO<sub>2</sub> cap-and-trade program will rely on title IV allowances, which sources will retire at specified ratios generally greater than 1-to-1 for compliance with the CAIR FIP SO<sub>2</sub> program. Congress has already allocated title IV SO<sub>2</sub> allowances to sources in perpetuity. State SO<sub>2</sub> emissions budgets would not affect the distribution of SO<sub>2</sub> allowances for the CAIR FIP SO<sub>2</sub> trading program (because SO<sub>2</sub> allowances are already allocated to sources) and are not directly relevant for today's final FIP rule.

After EPA finalized CAIR, the Agency was petitioned for and granted reconsideration on claims that inequities result from applying the CAIR SIP model rule SO<sub>2</sub> allocation methodology (which is based on existing title IV allocations). The Agency announced its decision to reconsider this issue in a **Federal Register** action dated December 2, 2005 (70 FR 72268) and is taking final action on the reconsideration in a separate action signed the same day as this action. EPA decided not to alter the approach taken in the final CAIR (*see* further discussion of reconsideration in section VI.G, below).

A few commenters on the proposed CAIR FIP expressed concern with the use of title IV to establish State SO<sub>2</sub> emission budgets. The FIP State SO<sub>2</sub> budgets and the FIP unit SO<sub>2</sub> allocations are both based on existing title IV allocations. The EPA responds to comments on the budgets and allocations for the FIP together in section VI.G, below.

The Agency is finalizing its proposed approach regarding SO<sub>2</sub> budgets for the CAIR FIP SO<sub>2</sub> trading programs.

#### D. State NO<sub>x</sub> Annual and NO<sub>x</sub> Ozone Season Emission Budgets

In the preamble to the final CAIR, the EPA explained how it determined CAIR State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season emission budgets (*see* section V.A.1.a of the CAIR NFR preamble, 70 FR 25230–25233; *see also* the rulemaking, signed the same day as this action, to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub>).

The EPA also summarized the process for determining CAIR State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season budgets in the preamble to the proposed FIP (70 FR 49723). The CAIR FIP proposal did not reopen for public comment EPA's determination of the CAIR State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season budgets or the budgets themselves. As discussed above, in today's FIP rule the Agency is implementing the emission reduction

requirements (including State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season emission budgets) that EPA developed in the CAIR rulemaking through a process that included extensive public participation.

After EPA finalized CAIR, the Agency was petitioned for and granted reconsideration on the use of fuel adjustment factors in determining CAIR State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season emission budgets. The EPA announced its decision to reconsider this issue in a **Federal Register** notice dated December 2, 2005 (70 FR 72268) and is taking final action on the reconsideration in a separate action signed the same day as this action. EPA decided not to alter the approach taken in the final CAIR.

A commenter on the proposed CAIR FIP raised concerns regarding the use of fuel adjustment factors in determining State NO<sub>x</sub> emission budgets. Concerns raised by the commenter with respect to EPA's use of fuel adjustment factors in determining State emission budgets are the same issues that the Agency is addressing in the context of the CAIR reconsideration process. The Agency's responses to this commenter on the use of fuel adjustment factors in setting FIP State NO<sub>x</sub> emission budgets are addressed in the CAIR reconsideration notice. *See* the December 2, 2005 **Federal Register** notice announcing the reconsideration (70 FR 72268) as well the notice of final action on reconsideration signed the same day as this action.

Some commenters addressed the use of fuel adjustment factors in the proposed FIP methodology for unit-by-unit NO<sub>x</sub> allocations. The Agency's responses regarding the use of fuel adjustment factors in the NO<sub>x</sub> allocation methodology are discussed in section VI.F in this preamble.

The State annual and ozone season EGU NO<sub>x</sub> budgets for today's final CAIR FIP trading programs are the same as the budgets in the final CAIR. For each State affected by the FIP NO<sub>x</sub> trading programs, the State NO<sub>x</sub> budgets are the total amount of allowances<sup>14</sup> that the Agency will allocate to sources in the State or that States will allocate using an abbreviated SIP revision. *See* section VI.F, below, for EPA's methodology and schedule for allocating NO<sub>x</sub> allowances to affected sources.

Table V–1 shows the State NO<sub>x</sub> emission budgets for the final FIP NO<sub>x</sub> cap-and-trade program. These are the same State NO<sub>x</sub> budgets as in the final

CAIR (*see* Table V–2 in the CAIR NFR preamble (70 FR 25231); *see also* the rulemaking, signed the same day as this action, to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub>).

TABLE V–1.—CAIR FIP NO<sub>x</sub> ANNUAL ELECTRIC GENERATING UNITS BUDGETS

[tons]		
State	State NO <sub>x</sub> annual budget 2009–2014	State NO <sub>x</sub> annual budget 2015 and thereafter
Alabama .....	69,020	57,517
Delaware .....	4,166	3,472
District of Columbia .....	144	120
Florida .....	99,445	82,871
Georgia .....	66,321	55,268
Illinois .....	76,230	63,525
Indiana .....	108,935	90,779
Iowa .....	32,692	27,243
Kentucky .....	83,205	69,337
Louisiana .....	35,512	29,593
Maryland .....	27,724	23,104
Michigan .....	65,304	54,420
Minnesota .....	31,443	26,203
Mississippi .....	17,807	14,839
Missouri .....	59,871	49,892
New Jersey .....	12,670	10,558
New York .....	45,617	38,014
North Carolina ..	62,183	51,819
Ohio .....	108,667	90,556
Pennsylvania ....	99,049	82,541
South Carolina ..	32,662	27,219
Tennessee .....	50,973	42,478
Texas .....	181,014	150,845
Virginia .....	36,074	30,062
West Virginia ....	74,220	61,850
Wisconsin .....	40,759	33,966
CAIR Region Total .....	1,521,707	1,268,091

Table V–2 shows the State NO<sub>x</sub> ozone season emission budgets for the final CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program. These are the same State NO<sub>x</sub> ozone season budgets as in the final CAIR (*see* Table V–4 in the CAIR NFR preamble (70 FR 25233)).

TABLE V–2.—CAIR FIP NO<sub>x</sub> OZONE SEASON ELECTRICITY GENERATING UNIT BUDGETS

[tons]		
State *	State NO <sub>x</sub> ozone season budget 2009–2014	State NO <sub>x</sub> ozone season budget 2015 and thereafter
Alabama .....	32,182	26,818
Arkansas .....	11,515	9,596
Connecticut .....	2,559	2,559
Delaware .....	2,226	1,855
District of Columbia .....	112	94
Florida .....	47,912	39,926

<sup>14</sup> As in CAIR, a NO<sub>x</sub> annual allowance will authorize the emission of a ton of NO<sub>x</sub> during a calendar year, and a NO<sub>x</sub> ozone season allowance will authorize the emission of a ton of NO<sub>x</sub> during an ozone season.

TABLE V-2.—CAIR FIP NO<sub>x</sub> OZONE SEASON ELECTRICITY GENERATING UNIT BUDGETS—Continued

[tons]

State *	State NO <sub>x</sub> ozone season budget 2009–2014	State NO <sub>x</sub> ozone season budget 2015 and thereafter
Illinois .....	30,701	28,981
Indiana .....	45,952	39,273
Iowa .....	14,263	11,886
Kentucky .....	36,045	30,587
Louisiana .....	17,085	14,238
Maryland .....	12,834	10,695
Massachusetts ..	7,551	6,293
Michigan .....	28,971	24,142
Mississippi .....	8,714	7,262
Missouri .....	26,678	22,231
New Jersey .....	6,654	5,545
New York .....	20,632	17,193
North Carolina ..	28,392	23,660
Ohio .....	45,664	39,945
Pennsylvania ....	42,171	35,143
South Carolina ..	15,249	12,707
Tennessee .....	22,842	19,035
Virginia .....	15,994	13,328
West Virginia ....	26,859	26,525
Wisconsin .....	17,987	14,989
CAIR Region Total .....	567,744	484,506

\*For States that have lower EGU budgets under the NO<sub>x</sub> SIP Call than their 2009 CAIR budget, table V-2 includes their SIP Call budget. For Connecticut, the NO<sub>x</sub> SIP Call budget is also used for 2015 and beyond.

#### E. State NO<sub>x</sub> Annual Compliance Supplement Pool

The CAIR established State Compliance Supplement Pools (CSP) of NO<sub>x</sub> annual allowances of vintage 2009. In the FIP NPR, the Agency proposed to include in the CAIR FIP NO<sub>x</sub> trading program the same State CSP amounts as were established in CAIR.

The Agency received several comments on its proposal to include the CAIR CSPs in the CAIR FIP NO<sub>x</sub> trading program. The EPA responds to comments on inclusion of the CAIR CSPs in the FIP program, as well as comments on EPA's proposed method for distributing CSP allowances to sources, in section VI.I in today's preamble, below.

The Agency is finalizing its proposal to include the CAIR CSPs in the FIP trading programs. Table V-3 shows the State CSP amounts for the final CAIR FIP NO<sub>x</sub> trading program. These are the same CSP amounts as shown in the CAIR NFR preamble (*see* Table V-3 in the CAIR NFR at 70 FR 25232; *see also* the rulemaking, signed the same day as this action, to include Delaware and New Jersey in CAIR for PM<sub>2.5</sub>).

The CSPs provide, for each affected State, a pool of CAIR NO<sub>x</sub> annual

allowances from which EPA, or a State using an abbreviated SIP revision, can distribute allowances for use in complying with the CAIR FIP NO<sub>x</sub> annual trading program (*see* section VI.I in today's preamble for further discussion regarding distribution of CSP allowances).

TABLE V-3.—CAIR FIP NO<sub>x</sub> ANNUAL COMPLIANCE SUPPLEMENT POOL

[tons]

State	Compliance supplement pool
Alabama .....	10,166
Delaware .....	843
District Of Columbia .....	0
Florida .....	8,335
Georgia .....	12,397
Illinois .....	11,299
Indiana .....	20,155
Iowa .....	6,978
Kentucky .....	14,935
Louisiana .....	2,251
Maryland .....	4,670
Michigan .....	8,347
Minnesota .....	6,528
Mississippi .....	3,066
Missouri .....	9,044
New Jersey .....	660
New York .....	0
North Carolina .....	0
Ohio .....	25,037
Pennsylvania .....	16,009
South Carolina .....	2,600
Tennessee .....	8,944
Texas .....	772
Virginia .....	5,134
West Virginia .....	16,929
Wisconsin .....	4,898
Total .....	199,997

#### VI. CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> Cap-and-Trade Programs for EGUs

##### A. Purpose of CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> Cap-and-Trade Programs and Relationship to the CAIR

In today's action, EPA is finalizing CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs for EGUs as the Implementation Plan remedy for CAIR. The Agency is finalizing 3 separate CAIR FIP cap-and-trade programs: (1) SO<sub>2</sub> annual; (2) NO<sub>x</sub> annual; and (3) NO<sub>x</sub> ozone season. 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.<sup>15</sup> Emissions cap-and-trade programs are a proven method for achieving highly cost-effective

emissions reductions while providing regulated sources of emissions with flexibility in adopting compliance strategies. The incentives provided by regionwide cap-and-trade programs encourage economically efficient compliance over the entire region. The specific elements of the 3 trading programs in the FIP were developed by EPA, with significant public participation, during the CAIR development process.

Participation in the new CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs is mandatory for all sources covered by the final CAIR FIP. *See* section VI.E in today's preamble for discussion of affected sources (applicability). Regulatory text for today's new CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs will be located in part 97 in title 40 of the CFR.

The CAIR established State EGU emissions budgets that each State will use to determine its required emissions reductions. Today's final CAIR FIP cap-and-trade programs set specific rules for EGUs to decrease NO<sub>x</sub> and SO<sub>2</sub> emissions sufficiently to achieve emission reductions that are required under CAIR. As explained above in section IV, EPA will withdraw a State's FIP in coordination with approval of a SIP implementing the requirements of CAIR.

States may choose to meet their emission reduction obligations under CAIR by adopting, as part of their SIPs, the model cap-and-trade rules set forth in the CAIR and participating in the EPA administered trading programs. Any such participation will be fully integrated with the CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs that are finalized in today's action.

In order to be eligible to participate in an emissions cap-and-trade program, the Agency believes that there are two principal criteria that sources must meet, as stated in the supplemental proposal for the NO<sub>x</sub> 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. Emissions monitoring must be accurate and consistent among all sources so that each allowance turned in, represents its assigned amount of emissions. 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. The EPA believes that today's rule meets those criteria. The Agency also believes that, because

<sup>15</sup> Today's action includes revisions to the CAIR SIP model rules as described in section VII in this preamble. For the FIP trading programs the Agency adopts the SIP model rules as finalized today and modified for federal implementation.

today's rule contains the same mandatory program elements as are in the part 96 CAIR SIP model trading programs and is designed to meet the same environmental goals and caps sources at the same levels as those model trading programs, it is appropriate to integrate today's CAIR FIP with the CAIR SIP trading programs.

Sources subject to trading programs under the FIP and sources in States choosing to participate in the EPA-administered CAIR SIP trading programs will be able to trade allowances with one another under common emissions caps across participating States. 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. Unnecessary inconsistency in trading programs could hamper sources' ability to plan and achieve the needed reductions as cost effectively as possible. In addition, if a State submits and EPA approves a SIP revision including the CAIR SIP model trading programs after EPA establishes trading programs under today's FIP, disruptions to sources that shift from regulation under a FIP to regulation under a SIP will be minimized due to the consistency between the respective CAIR SIP and FIP programs.

The EPA establishes (in part 97) the geographic boundaries of the common trading programs as those States that submit SIP revisions in response to the CAIR implementing the EPA-administered trading programs or that are subject to FIPs. The EPA will administer these common trading programs in collaboration with affected States.

For the final CAIR FIP NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade programs, EPA adopted the CAIR model trading programs with slight revisions to allow for Federal implementation. The FIP trading programs are thus virtually identical to the CAIR SIP model trading programs. The CAIR FIP cap-and-trade programs include all of the mandatory elements that States are required to include in their SIPs in order to participate in the EPA-administered cap-and-trade programs for CAIR.

The Agency is finalizing, with certain changes described in section VI.C, the proposal to provide States that are subject to today's CAIR FIP requirements with the option to submit abbreviated SIP revisions covering specific elements of the FIP trading programs without submitting full SIP revisions to meet the requirements of CAIR. See section VI.C in this preamble

for further discussion of abbreviated SIP revisions.

#### *B. Relationship of Emissions Trading Programs to Section 126 Relief*

In section II of today's preamble, EPA responds to commenters who argued that, because a CAIR SIP could or the CAIR FIP would reflect a trading component, such an implementation plan would not satisfy section 126 as a matter of law. As explained in section II, these arguments assume that the Agency must grant the petition, which is not EPA's view so long as the underlying SIP deficiencies are rectified.

Although EPA is denying the section 126 petition as discussed elsewhere in today's preamble, based on modeling projections the Agency believes that sources in States upwind of North Carolina will reduce emissions under the CAIR trading regime.

As discussed in the FIP NPR (70 FR 49737), EPA believes that upwind sources in States that were found to contribute significantly to North Carolina nonattainment will in fact reduce emissions of PM<sub>2.5</sub> precursors under the CAIR trading regime. The Agency explained that its Integrated Planning Model (IPM)<sup>16</sup> analysis conducted for the CAIR NFR—which assumes emissions trading—projects decreases in annual SO<sub>2</sub> and NO<sub>x</sub> emissions under CAIR compared to the Base Case (*i.e.*, compared to projections without CAIR) in both 2010 and 2015 for each of the States found in the CAIR NFR analysis to contribute significantly to nonattainment of the PM<sub>2.5</sub> NAAQS in North Carolina.

The EPA further explained that the Agency's CAIR modeling—which, again, assumes interstate emissions trading—projects that under CAIR by 2010, with the projected emission reductions, there will be no remaining PM<sub>2.5</sub> nonattainment counties in North Carolina. Thus, the emission reductions under CAIR are projected to be sufficient to eliminate PM<sub>2.5</sub> nonattainment in North Carolina and, necessarily, no States will contribute to nonattainment.<sup>17</sup> This discussion of the

<sup>16</sup> The IPM is a multiregional, dynamic, deterministic linear programming model of the U.S. electric power sector. The Agency uses IPM to examine costs and, more broadly, analyze the projected impact of environmental policies on the electric power sector in the 48 contiguous States and the District of Columbia.

<sup>17</sup> IPM emissions modeling conducted for the final CAIR is in the CAIR docket EPA-HQ-OAR-2003-0053; air quality modeling results are in the Air Quality Modeling Technical Support Document for the Final Clean Air Interstate Rule, March 2005, Appendix F; see also Table VI-10 to the preamble of the CAIR final rule at 70 FR 25251.

Agency's analysis of CAIR is informational and is not intended to reopen or reconsider any issue related to that analysis.

As discussed in section II in today's preamble, some commenters argued that relief under section 126 must occur within 3 years and therefore that the CAIR emission reductions do not satisfy section 126 because although those reductions commence within 3 years they are phased in over a longer time. We respond to legal arguments in section II, above.

In any case, the EPA believes that many emission sources in States upwind of North Carolina will install NO<sub>x</sub> and/or SO<sub>2</sub> emission control technology before 2009. As explained above, EPA modeling projects that North Carolina will come into attainment of the PM<sub>2.5</sub> standards by 2010 under CAIR, including trading programs. Much of the emission reductions that will bring North Carolina counties into attainment with the PM<sub>2.5</sub> standards will result from use of selective catalytic reduction (SCR) for NO<sub>x</sub> control and flue gas desulphurization (FGD) for SO<sub>2</sub> control on units in upwind States. For the following reasons, EPA believes that many of these controls will be installed before 2009.

Early emission reductions occur for several reasons. Today's CAIR FIP trading rules and the CAIR SIP model trading rules include incentives for early emission reductions. For example, sources may bank title IV SO<sub>2</sub> allowances into the CAIR FIP or CAIR SIP SO<sub>2</sub> trading programs (*see* section VI.I, below, for further discussion of incentives for early reductions). Another reason why sources may reduce emissions early is the need to stagger control installations at plants where multiple units will be retrofitted to avoid operational disruptions.

As discussed elsewhere in today's preamble, the 10 States that EPA determined in CAIR contribute to North Carolina's nonattainment of the PM<sub>2.5</sub> standards are Alabama, Georgia, Indiana, Kentucky, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia. Table VI-1, below, summarizes for these 10 States the total coal-fired electric generating capacity expected to be on-line by the end of 2006 as well as the portion of that capacity expected to be controlled with SCR or FGD.<sup>18</sup> In addition, the table

<sup>18</sup> Generating capacity through the end of 2006 (with capacity greater than 25 MWe) based on EPA's v.2.1.9 NEEDS database (2004). Capacity expected to be controlled with SCR or FGD by the end of 2006 based on research EPA conducted on planned control retrofits on coal-fired units.

summarizes for the 10 States the generating capacity that EPA expects to be controlled with SCR or FGD through the end of 2008 based on research that the Agency conducted for today's

action.<sup>19</sup> The table also summarizes for the 10 States the generating capacity that EPA projects will be controlled with SCR or FGD by the end of 2010 based on IPM modeling projections.<sup>20</sup>

As Table VI–1 indicates, many of the emission controls that EPA's modeling projects will be installed by the end of 2010 are actually likely to be installed before 2009.

TABLE VI–1.—SCR AND FGD SUMMARY FOR 10 STATES CONTRIBUTING TO NORTH CAROLINA'S NONATTAINMENT OF THE PM<sub>2.5</sub> STANDARDS

Total generating capacity by end of 2006	Expected capacity with emission controls by end of 2006	Expected capacity with emission controls by end of 2008	Projected capacity with emission controls by end of 2010 under CAIR
132 GW (466 units) .....	SCR: 67 GW (126 units) ..... FGD: 48 GW (111 units) .....	SCR: 70 GW (130 units) ..... FGD: 64 GW (137 units) .....	SCR: 82 GW (184 units) FGD: 73 GW (167 units)

EPA believes that even more controls may be installed before 2009 than were identified in the Agency's research. It is reasonable to suppose that, once CAIR SIP revisions are submitted and approved, additional plans for control retrofits will be adopted due to SIP revisions.

Some commenters supported the use of trading programs in connection with a section 126 remedy and some did not. A commenter, using South Carolina as an example, questioned why emissions can be above State budget amounts through allowance trading. This commenter points out that EPA's IPM modeling for CAIR projects emissions in South Carolina above the State's 2015 SO<sub>2</sub> emissions budget 5 years after 2015 and asserts that emissions over the State budget "will still contribute to attainment problems in North Carolina." However, as explained above, based on modeling for CAIR—which assumes interstate emissions trading—by 2010 there will be no remaining PM<sub>2.5</sub> nonattainment counties in North Carolina. In other words, the EGU emission reductions projected by IPM to occur under the CAIR trading regimes are the amounts that are projected to be sufficient to bring North Carolina into attainment in 2010, regardless of whether for some States emissions are projected to be above the State EGU emissions budgets.

### C. Abbreviated SIP Revisions Covering Elements of the CAIR FIP Cap-and-Trade Programs

In the FIP NPR (70 FR 49720, 49727–49739), the Agency proposed to provide States that are covered by CAIR with the option to submit abbreviated SIP

revisions covering specific elements of the CAIR FIP trading programs without submitting full SIP revisions to meet the requirements of CAIR. By proposing to accept such abbreviated SIP revisions, the Agency intended to increase the options available for States to comply with CAIR. A State could choose to retain control of these specific elements of the trading programs without submitting a full SIP revision.

As proposed, a State would submit an abbreviated SIP revision that would modify the application of certain elements of the FIP in order to better meet the needs of the State. The EPA proposed that a State could choose to modify the application of the FIP through abbreviated SIP revisions that would do any or all of the following:

- Make applicable, to the State, provisions in the FIP for otherwise unaffected units to opt into the FIP trading programs,
- Allow the State, rather than EPA, to allocate NO<sub>x</sub> annual and/or NO<sub>x</sub> ozone season allowances,
- Allow the State, rather than EPA, to allocate allowances from the NO<sub>x</sub> annual Compliance Supplement Pool (CSP), and
- Include NO<sub>x</sub> SIP Call trading sources that are not EGUs under CAIR in the CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program.

As there are no sanctions or penalties for leaving the CAIR FIP trading programs in place, EPA anticipates that some States may prefer to avoid spending the time and money necessary to submit a full SIP revision and may just modify the application of certain parts of the FIP.

<sup>19</sup> This includes expected capacity (greater than 25 MWe) with control retrofits through the end of 2008 based on EPA research of planned control retrofits on coal-fired units. Research included searching the Internet for company announcements regarding contracts for control retrofits. For 2007 and 2008 retrofits EPA focused its research on units with capacity greater than 100 MWe; if smaller

units were included, we might have identified additional planned retrofits.

<sup>20</sup> These 2010 projections are from IPM modeling conducted for the final CAIR and include units with capacity greater than 25 MWe (IPM version 2.1.9, 2004).

<sup>21</sup> The proposed regulatory text at § 51.123 (70 FR 49746) would require States using the abbreviated SIP revision approach for NO<sub>x</sub> allocations to notify

The final CAIR (70 FR 25162) requires States to submit SIP revisions complying with the CAIR requirements to the Agency by September 11, 2006 and to submit the initial set of NO<sub>x</sub> allocations by October 31, 2006.

In the CAIR FIP NPR, the Agency proposed that States choosing to submit abbreviated SIP revisions addressing the specific elements identified in the proposal would be required to submit such revisions to EPA by March 31, 2007, and—if choosing to address NO<sub>x</sub> allocations in an abbreviated SIP revision—would be required to submit the initial set of NO<sub>x</sub> allocations by September 30, 2007 (70 FR 49731).<sup>21</sup> The EPA proposed allowing States to submit abbreviated SIP revisions later than full revisions because the Agency anticipates that it will be able to complete the approval process more quickly for abbreviated revisions due to their narrower scope.

The Agency proposed to include appendices in part 97 that will be amended in the future to list any States for which the Administrator approves abbreviated SIP revisions covering options, allocation of NO<sub>x</sub> allowances, distribution of CSP allowances, or inclusion of non-CAIR NO<sub>x</sub> SIP Call trading sources in the CAIR FIP NO<sub>x</sub> ozone season trading program.

The Agency received a number of comments on its proposal to allow submission of abbreviated SIP revisions for CAIR. Several commenters supported the abbreviated SIP revision approach. A commenter states that the approach provides States added flexibility, helps facilitate eventual transitions from a FIP-implemented to a State-implemented CAIR, and provides

EPA of such allocations by September 30, 2007 for 2009, 2010 and 2011. Through an inadvertent error, the preamble listed a different date—the preamble indicated that the proposed deadline for such allocations would be October 31, 2007 (70 FR 49731). The Agency intended the proposed date to be September 30, 2007 as indicated in the regulatory text.

sources with better certainty regarding key operational elements (such as NO<sub>x</sub> allocations) over the initial years of the program. Commenters generally supported the choice of specific elements that EPA proposed to allow States to control using abbreviated SIP revisions.

Several commenters argued against the Agency's proposed submission deadline for abbreviated SIP revisions. Commenters who argued against the proposed submission deadline generally did so in relation to the timing for NO<sub>x</sub> allocations. The EPA discusses the schedule for determining and recording NO<sub>x</sub> allocations in detail in the NO<sub>x</sub> allocations section in today's preamble (section VI.F, below) and responds in that section to commenters' concerns regarding submission deadlines for abbreviated SIP revisions in relation to NO<sub>x</sub> allocation timing.

One commenter that did not support the proposal for abbreviated SIP revisions suggested that allowing such revisions to be submitted later than the deadline for a full SIP revision sets a poor procedural precedent. The Agency disagrees. The proposal to allow abbreviated SIP revisions for CAIR is based on the unique circumstances in this case and does not set precedent for other different circumstances.

The EPA is finalizing, with certain changes described below, the approach that a State can choose to modify the application of the CAIR FIP through abbreviated SIP revisions that do any or all of the following:

- Make applicable, to the State, provisions in the FIP for otherwise unaffected units to opt into the FIP trading programs,
- Allow the State, rather than EPA, to allocate annual and/or ozone season NO<sub>x</sub> allowances,
- Allow the State, rather than EPA, to allocate allowances from the annual NO<sub>x</sub> Compliance Supplement Pool (CSP), and
- Include NO<sub>x</sub> SIP Call trading sources that are not EGUs under CAIR in the CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program.

Thus a State could choose, through its abbreviated SIP revision, to bring its NO<sub>x</sub> SIP Call trading sources that are not EGUs under CAIR from the NO<sub>x</sub> SIP Call trading program into the CAIR NO<sub>x</sub> ozone season trading program.

With regard to the provision allowing an abbreviated SIP revision to provide for State allocation of annual and/or ozone season NO<sub>x</sub> allowances, EPA is revising that provision to give States the same flexibility concerning such allocations as States have in a full SIP revision. In a full SIP revision, States

have the option of allocating allowances to CAIR units or to other entities (such as renewable energy facilities) or of auctioning allowances. The States must submit the CAIR unit allocations to the Administrator by specified deadlines so that the allowances can be recorded in the allowance tracking system, but the requirements for a full SIP revision do not address what happens if the State fails to meet these deadlines. In contrast, under the proposed provision for an abbreviated SIP revision allowing for State allowance allocations, a State's allocation provisions must provide that, if a State does not inform the Administrator of the allocations to CAIR units by the specified deadlines, the Administrator will assume that the units get the same allocations for the year as in the prior year and will record such unit allocations. (EPA notes that the deadline for submitting the initial set of allocations is changed, as described below, from the proposed deadline of September 30, 2007 to April 30, 2007.)

The difficulty with the proposed approach is that it assumes that the State is distributing (not auctioning) allowances and is providing them to CAIR units (not to other entities). In order to clarify that States have the same flexibility in allocating in abbreviated SIP revisions and full SIP revisions, EPA is removing the abbreviated SIP revision language concerning the Administrator's actions in the event a State fails to inform in a timely manner the Administrator of the allocations. However, it should be noted that the provisions for both abbreviated SIP revisions and full SIP revisions set deadlines for State submission of allocations to the Administrator for recordation and that, in reviewing such SIP revisions, EPA intends to ensure that the SIP revisions are consistent with those deadlines.

With regard to the provision allowing an abbreviated SIP revision to provide for State allocation of the CSP, EPA is revising that provision to give States the same flexibility with regard to CSP allocations as States have in a full SIP revision. Under § 51.123(e)(4)(iii), States may use in a full SIP revision one or both of the mechanisms described for CSP allocation, one based on early reductions and one based on need. Under the proposed provision for an abbreviated SIP revision concerning State CSP allocations, a State must use the allocation methods detailed in either § 96.143 or § 97.143. In order that an abbreviated SIP revision provides States the same flexibility as a full SIP revision, EPA is revising the abbreviated SIP revision language to give States the options of using the § 96.143 or § 97.143

provisions or the provisions under § 51.123(e)(4).

The EPA will include appendices in part 97 that will be amended in the future to list any States for which the Administrator approves abbreviated SIP revisions covering any of the 4 specific elements listed above. The EPA anticipates coordinating such amendments of the appendices with the Administrator's final decision to approve such SIP revisions.

#### *D. Overall Structure of the CAIR FIP Cap-and-Trade Programs*

In the CAIR NFR, the Agency provided SIP model rules for the CAIR NO<sub>x</sub> annual, CAIR NO<sub>x</sub> ozone season, and CAIR SO<sub>2</sub> annual trading programs that States can use to meet the emission reduction requirements in the CAIR (in part 96). For the final CAIR FIP cap-and-trade programs, EPA decided to adopt the CAIR SIP model rules with minor changes to allow for Federal implementation.

The emission reductions mandated by today's final rule will be achieved from EGUs (see sections VI.E and VII, below, for discussion of applicability provisions).

The CAIR FIP cap-and-trade programs rely on the detailed unit-level emissions monitoring and reporting procedures of part 75 and consistent allowance management practices. All affected sources are required to monitor and report their emissions using part 75. Source information management, emissions data reporting, and allowance trading will be accomplished using on-line systems similar to those currently used for the Acid Rain SO<sub>x</sub> and NO<sub>x</sub> SIP Call trading programs.

The penalty provisions for excess emissions under today's FIP trading programs were also adopted from the CAIR model trading rules. As discussed in section VII in today's preamble, the Agency revised the excess emission penalties in the CAIR SO<sub>2</sub> trading program to clarify the penalties for units that have excess emissions under both the Acid Rain Program and the CAIR SO<sub>2</sub> trading program. The penalty provisions adopted for the final FIP thus are the excess emissions penalty provisions in the CAIR with the revised CAIR SO<sub>2</sub> trading program penalties.

#### *1. SO<sub>2</sub> Annual Program*

The final CAIR FIP SO<sub>2</sub> cap-and-trade program requires affected sources to hold SO<sub>2</sub> allowances sufficient to cover their emissions for each control period. For the FIP SO<sub>2</sub> program, EPA decided to adopt the CAIR model SO<sub>2</sub> trading rule (with minor changes to allow for Federal implementation) which is based

on the existing Acid Rain Program and relies on title IV SO<sub>2</sub> allowances.

As in the CAIR SIP SO<sub>2</sub> model trading program, the SO<sub>2</sub> reductions for the CAIR FIP SO<sub>2</sub> trading program will be achieved by requiring sources to retire, in most cases, more than one title IV allowance for each ton of SO<sub>2</sub> emissions.<sup>22</sup> Sources can use pre-2010 title IV SO<sub>2</sub> allowances for compliance with the CAIR FIP SO<sub>2</sub> cap-and-trade program at a 1-to-1 ratio (*i.e.*, SO<sub>2</sub> allowances of vintage 2009 and earlier will offset one ton of SO<sub>2</sub> emissions). Allowances of vintages 2010 through 2014 will offset 0.5 tons of emissions (*i.e.*, such allowances will need to be retired at a ratio of 2-to-1 for CAIR compliance, in other words 2 allowances for every ton of emissions). Allowances of vintages 2015 and beyond will offset 0.35 tons of emissions (*i.e.*, such allowances will need to be retired at a ratio of 2.86-to-1, in other words 2.86 allowances for every ton of emissions). The emission value of an SO<sub>2</sub> allowance is independent of the year in which it is used, but rather is based on its vintage (*i.e.*, the year for which the allowance is issued). These SO<sub>2</sub> allowance retirement ratios are the retirement ratios in the CAIR NFR, which EPA adopted in the CAIR FIP SO<sub>2</sub> trading program (*see* discussion in section VII in the CAIR NFR preamble at 70 FR 25255–25273, as well as in section IX at 70 FR 25290–25291).

The Agency uses the single term, “CAIR SO<sub>2</sub> allowance,” to refer to an SO<sub>2</sub> allowance under a CAIR SIP using the model trading rule or CAIR FIP.<sup>23</sup> A CAIR SO<sub>2</sub> allowance can be used for compliance with the SO<sub>2</sub> allowance-holding requirement in a CAIR SIP or CAIR FIP SO<sub>2</sub> trading program. Sources in States governed by either of these SO<sub>2</sub> trading programs can trade CAIR SO<sub>2</sub> allowances with each other.

## 2. NO<sub>x</sub> Annual Program

The final CAIR FIP NO<sub>x</sub> annual cap-and-trade program requires affected sources to hold NO<sub>x</sub> annual allowances sufficient to cover their emissions for each control period. For the FIP NO<sub>x</sub>

trading program, EPA adopted the CAIR SIP model NO<sub>x</sub> trading program with minor revisions to allow for Federal implementation. The FIP NO<sub>x</sub> program relies on CAIR NO<sub>x</sub> annual allowances that will be allocated to affected units by the EPA (*see* section VI.F in today’s preamble for discussion of the methodology and schedule for allocating NO<sub>x</sub> allowances) or allocated by States using abbreviated SIP revisions. A NO<sub>x</sub> annual allowance authorizes the emission of one ton of NO<sub>x</sub>.

The Agency is finalizing the proposed Compliance Supplement Pool (CSP) of allowances that will be allocated to sources and can be used for compliance with the CAIR FIP NO<sub>x</sub> annual cap-and-trade program. *See* sections V and VI.I in today’s preamble for further discussion of the CSP.

NO<sub>x</sub> ozone season allowances issued under the NO<sub>x</sub> SIP Call or under the CAIR FIP NO<sub>x</sub> ozone season trading program can’t be used for compliance with the CAIR FIP NO<sub>x</sub> annual reduction requirement. (Pre-2009 NO<sub>x</sub> ozone season allowances issued under the NO<sub>x</sub> SIP Call can be banked into the CAIR FIP NO<sub>x</sub> ozone season program; *see* discussion of FIP NO<sub>x</sub> ozone season program, below.)

The Agency uses the single term, “CAIR NO<sub>x</sub> allowance,” to refer to a NO<sub>x</sub> allowance issued under a CAIR SIP using the model trading rule or CAIR FIP. A CAIR NO<sub>x</sub> allowance can be used for compliance in a CAIR SIP or CAIR FIP NO<sub>x</sub> annual trading program. Sources in States governed by either of these NO<sub>x</sub> annual trading programs can trade CAIR NO<sub>x</sub> allowances with each other.

## 3. NO<sub>x</sub> Ozone Season Program

The final CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program requires affected sources to hold CAIR NO<sub>x</sub> ozone season allowances sufficient to cover their emissions for each control period. For the ozone season program, the control period extends from May 1 through September 30 for each year of the program. For this trading program also, EPA adopted the trading program from the CAIR SIP model NO<sub>x</sub> ozone season trading rule with minor modifications to allow for Federal implementation. Under the FIP program, a NO<sub>x</sub> ozone season allowance authorizes the emission of one ton of NO<sub>x</sub> during the ozone season.

The FIP program relies on CAIR NO<sub>x</sub> ozone season allowances that will be allocated to affected sources by the EPA (*see* section VI.F in today’s preamble for discussion of the methodology and schedule for allocating NO<sub>x</sub> allowances)

or allocated by States using abbreviated SIP revisions. In addition, pre-2009 NO<sub>x</sub> SIP Call allowances can be banked into the CAIR FIP NO<sub>x</sub> ozone season program and used by affected sources for compliance with that program. NO<sub>x</sub> allowances issued under the CAIR FIP NO<sub>x</sub> annual program can’t be used for compliance with the CAIR FIP NO<sub>x</sub> ozone season reduction requirement.

As discussed in the CAIR NFR and the CAIR FIP NPR, certain emission sources that do not meet the applicability requirements of CAIR are included in the existing EPA-administered NO<sub>x</sub> Budget Trading Program under the NO<sub>x</sub> SIP Call. (The types of NO<sub>x</sub> Budget Trading Program units that are not EGUs under CAIR include industrial boilers and turbines, cement kilns, and small EGUs.) As explained in the CAIR NFR and CAIR FIP NPR, EPA will no longer administer the NO<sub>x</sub> SIP Call ozone season cap-and-trade program for ozone seasons after 2008; however, NO<sub>x</sub> SIP Call requirements will remain in place. The CAIR NFR provides that States that choose to participate in the CAIR EPA-administered NO<sub>x</sub> ozone season cap-and-trade program may choose whether or not to bring their non-CAIR NO<sub>x</sub> SIP Call trading sources into the CAIR ozone season trading program, through their SIP revisions. Bringing the non-CAIR NO<sub>x</sub> SIP Call trading sources into the CAIR ozone season program is one way to continue to meet NO<sub>x</sub> SIP Call requirements. *See* section VII in the CAIR NFR (70 FR 25255–25273) and section IX.A. (70 FR 25289–25290).

As discussed above, the Agency is finalizing its proposal that States may choose to submit an abbreviated SIP revision to bring their non-CAIR NO<sub>x</sub> SIP Call trading sources into the CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program. The abbreviated SIP revision may increase a State’s NO<sub>x</sub> ozone season trading budget under the CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program by an amount equal to the portion of the State’s NO<sub>x</sub> SIP Call State trading budget that is attributed to such units.

The Agency uses the single term, “CAIR NO<sub>x</sub> Ozone Season allowance,” to refer to a NO<sub>x</sub> ozone season allowance issued under a CAIR SIP using the model trading rule or CAIR FIP. A CAIR NO<sub>x</sub> ozone season allowance could be used for compliance in a CAIR SIP or CAIR FIP NO<sub>x</sub> ozone season trading program. Sources in States governed by either of these NO<sub>x</sub> ozone season trading programs can trade CAIR NO<sub>x</sub> Ozone Season allowances with each other.

<sup>22</sup> Allowances of pre-2010 vintage will be retired at a ratio of one allowance per ton of emissions. For allowances of later vintages, more than one allowance will be retired per ton of emissions.

<sup>23</sup> A CAIR SO<sub>2</sub> allowance is generally a title IV SO<sub>2</sub> allowance; the only exception is where a State adopts the provisions allowing units not otherwise covered by the CAIR SO<sub>2</sub> trading program to opt in and allocates allowances (which are not title IV allowances) to such units. For purposes of compliance with the EPA-administered CAIR SIP SO<sub>2</sub> trading program or with the CAIR FIP SO<sub>2</sub> trading program in today’s rule, the value of SO<sub>2</sub> allowances are discounted based on the allowance vintage year, as explained above.

### *E. Sources Subject to the CAIR FIP Cap-and-Trade Programs*

Under the proposed CAIR FIP cap-and-trade programs, only EGUs were subject to the proposed rules. The proposed applicability provisions are, by design, identical to the provisions for applicability the CAIR SIP model trading programs and incorporated the FIP NPR revisions to the applicability provisions of the final CAIR SIP model trading rules. The revisions to CAIR SIP model rule applicability include exemptions for (1) municipal solid waste incinerators and (2) existing units that have not served a generator since before November 15, 1990.

Incorporating these exemptions into the applicability provisions in both the CAIR SIP and CAIR FIP trading programs provides clarity and aligns the provisions more closely with the provisions in the title IV Acid Rain Program. A detailed discussion of the rationales for including these exemptions may be found in section VII of the CAIR FIP NPR. (See section VIII.C. in the CAIR NFR preamble for applicability discussion at 70 FR 25276–25278 and section VII in today's preamble for additional discussion of changes to the CAIR EGU definition).

Public comment on the proposed applicability provisions of the CAIR FIP trading programs primarily expressed interest in additional exemptions for waste coal-fired units, biomass-fired units, and low emissions units. These are discussed in detail below.

**Applicability in the Final CAIR FIP.** Today's action finalizes that, in any jurisdiction for which a final CAIR FIP is promulgated, 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 stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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 incinerators are exempt from the CAIR FIP and are described below.

**Cogeneration Unit Exemption.** As in the CAIR NFR, certain cogeneration units are exempt from the CAIR FIP trading programs. Cogeneration units include 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. The program has different

applicability provisions for non-cogeneration units and cogeneration units. Any cogeneration unit, serving (since the later of November 15, 1990 or the start-up of the unit), a generator with a nameplate capacity of greater than 25 MW and 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, will be subject to the requirements of the CAIR FIP trading rules.

Otherwise, the unit will qualify for an exemption under the FIP rules. This cogeneration unit exemption is identical to the exemption in the CAIR NFR, as revised by today's action. Section VIII.C.3. of the CAIR NFR preamble describes the cogeneration unit exemption and discusses the specific elements of how units would qualify and remain qualified for the exemption (70 FR 25276–25278).

**Solid Waste Incinerator Exemption.** Today's action includes an exemption for certain solid waste incinerators in both the CAIR and CAIR FIP cap-and-trade programs. Specifically, a solid waste incineration unit commencing operation before January 1, 1985, for which the average annual fuel consumption of non-fossil fuels during 1985–1987 exceeded 80 percent and during any 3 consecutive calendar years after 1990 the average annual fuel consumption of non-fossil fuels exceeds 80 percent, is not subject to either the CAIR or CAIR FIP cap-and-trade programs. (Section VII of the preamble for today's rule provides additional discussion.)

**Individual Unit Opt-ins.** Today's action includes provisions for individual units to opt-in to the CAIR FIP trading programs. These units, when they opt-in, become "affected" by the CAIR FIP trading program and, as a result, must comply with allowance holding requirements, monitor and report emissions, and receive CAIR allowances.

The opt-in provisions of the CAIR FIP trading programs would become applicable to sources in a given State only if the State chooses to submit an abbreviated SIP revision that would provide for the inclusion of opt-ins in the CAIR FIP trading programs. The EPA considered requiring all States to have opt-in provisions in the proposed CAIR FIP trading programs. By not requiring opt-in provisions in all States covered by the proposed FIP trading programs, the Agency seeks to preserve the States' flexibility to decide whether to allow opt-in units. In addition, the EPA believes that including opt-in provisions only in States that have elected to include them in an

abbreviated SIP revision avoids the possibility of "stranding" some opt-in units. More specifically, this requirement avoids a situation where a unit might make investments based upon assumption that it will opt-in to a CAIR FIP trading program only to be stranded if the CAIR FIP program was later supplanted by EPA approving a CAIR SIP submitted by the State that did not include opt-in provisions.

If States choose to submit abbreviated SIP revisions to provide for the inclusion of opt-ins in the CAIR FIP trading programs, the SIP revisions must include the opt-in provisions that are provided in the CAIR final rule. See section VIII.G. of the CAIR NFR preamble for discussion of opt-in provisions (70 FR 25286–25288).

**Waste Coal-Fired Units Under CAIR FIP.** The EPA received comments requesting an exemption for waste coal-fired units from both the CAIR and CAIR FIP SO<sub>2</sub> annual programs. Some commenters claimed that their costs to comply with the programs are excessively high. The economics of a waste coal-fired unit are different depending upon whether the unit has a fixed price power purchase agreement in place or whether it is selling electricity on the wholesale market.

Units that had power purchase agreements with fixed prices in place on November 15, 1990, are exempt from title IV and do not receive title IV allowances. The commenters state that, while their agreements are in effect, these units are not able to pass through cost increases, such as the cost of compliance with CAIR, except where specific escalations are provided (*e.g.*, compensation for increases in fuel costs or inflation).

While under the agreements and exempt from title IV, the units can opt into the title IV program and receive allowances as opt-in units. Commenters claim that the title IV opt-in provisions could allocate allowances to them at levels below their projected emissions because the years on which title IV bases the allocations are early in the units operation and might under-represent the unit's typical heat input. The commenters add that it is not cost effective for the units to reduce SO<sub>2</sub> emissions by installing advanced emission controls because the units already achieve significant reductions and have fixed price contracts that do not allow them to pass through control costs.

The second scenario is the period beginning when the units' power purchase agreements expire and the units lose their title IV exemption. As title IV affected units, they lose their



title IV opt-in status and can no longer receive title IV allowances under the title IV opt-in provisions. These units are no longer locked into their power purchase contracts and are free to participate in the wholesale electricity markets. The commenters contend that reducing emissions—even when they are free to pass through the cost of compliance—is not cost-effective, because most waste coal-fired facilities already operate at lower SO<sub>2</sub> emission rates than many other sources. This, however, belies the real issue, since under a trading program, sources have multiple compliance options including installing emission controls, switching fuels or purchasing allowances. If a source's control costs are above the marginal cost of control in the region, the unit is likely to comply by purchasing allowances, thereby reducing their cost of control to the market price.

In general, information regarding the cost of generation, electricity markets, and cost of controlling emissions may be found through publicly available sources. This information is used, and in some cases developed, by EPA in its regulatory efforts (e.g., IPM modeling results, technical support documents (TSD) examining the cost and feasibility of control options). However, information regarding specific terms of the contracts, such as found in the power purchase agreements of the waste coal-fired units, is generally proprietary and is claimed to vary widely from contract to contract. Although complete information on contracts (e.g., the fixed price for electricity, price escalators) could have been provided in order to perform a thorough analysis, commenters provided EPA with some limited information (much of it after the public comment period closed) that did not support the commenters' case for the broad closure of waste coal-fired units as a category of sources. In addition, commenters presented some limited analysis of the ratio of their estimated cost of compliance with CAIR to their projected revenue. Again, EPA's evaluation of this limited analysis showed that it did not support the commenters' claims that they would not be economically viable. (The results of EPA's evaluation of the commenters' analysis are discussed later in this section.) Because the unit-specific information provided by the commenters was limited, EPA conducted an analysis using generally available information to evaluate the potential impact of the cost of complying with CAIR for a typical CFB combusting waste coal. This analysis

shows that the typical waste coal-fired unit would remain economically viable under CAIR. (The results of this analysis are discussed later in this section.)

EPA understands that waste coal-fired facilities have not received a title IV SO<sub>2</sub> allowance allocation because they have been exempt from title IV under the IPP exemption. Title IV's IPP exemption applies to units that had power purchase agreements with fixed prices in place on November 15, 1990, and includes units other than waste coal-fired facilities. Congress limited this exemption to only those units with power purchase commitments in effect, thereby acknowledging that once the unit was freed from its power purchase commitment, it was free to pass through compliance costs to its customers. The unit may lose this exemption even before the full-term of the contract if the power purchase commitment changes after November 15, 1990, in a way that allows the cost of compliance with the Acid Rain Program to be shifted to the purchaser. For example, expiration or termination of the power purchase commitment or modification so that the price is increased (e.g., changed to a market price) results in loss of the exemption. The purpose of the exemption is to protect IPP facilities subject to contract prices that were set before passage of the CAA Amendments of 1990 (including the Acid Rain Program in title IV) and that did not allow pass through of the costs of Acid Rain Program compliance. Congress has limited the exemption to apply to the Acid Rain Program and did not mandate the Agency with maintaining the exemption in future programs. EPA believes that this exemption was aimed at easing the transition of such facilities into the Acid Rain Program and that there is no basis for maintaining this exemption for every subsequent cap-and-trade program.

Waste coal-fired units are designed and operated for the purpose of generating electricity for sale. As a result, they are reasonably treated as part of the power generation sector, which comprises the category of sources the CAIR and CAIR FIP trading programs aimed at regulating. For this reason, EPA modeling for CAIR included waste coal-fired EGUs as part of the power sector, which was shown to collectively be able to make highly cost-effective SO<sub>2</sub> and NO<sub>x</sub> emission reductions. The marginal cost of control and the average cost of control, shown to be highly cost-effective, reflect a range of power sector control costs that include costs from sources such as waste coal-fired units. Notably, the model considers where control will be

least expensive and that some units will purchase allowances in the determination of which units are projected to dispatch. EPA modeling shows that waste coal-fired units continue to be dispatched even when the cost of complying with CAIR is part of the unit's production costs. Commenters did not provide any basis for changing EPA's treatment of waste coal-fired units in the modeling or for challenging EPA's modeling results.

EPA agrees that these units do not have large SO<sub>2</sub> emissions. These units may emit based on a reduction in SO<sub>2</sub> from sulfur content in the fuel of approximately 90 percent, or in some cases greater, reductions in SO<sub>2</sub> from sulfur content of the fuel.<sup>24</sup> However, many continue to emit at rates above those recently achieved by coal-fired units with advanced SO<sub>2</sub> controls (i.e., scrubbers). Nevertheless, because these units tend to be relatively small and have lower total emissions, they would be required to purchase significantly fewer allowances than other, potentially higher emitting, sources that also may not have received SO<sub>2</sub> allowances under title IV.

However, EPA does not believe that the CAIR SO<sub>2</sub> annual requirements would impose an undue or inequitable "economic burden" on waste coal-fired units that would "threaten the viability" of all, or even many, of these units. EPA considered the potential impacts for both the periods of the concern identified by the commenter: (1) When the power purchase agreement is in place and the unit is exempt from title IV; and (2) after the power purchase agreement has expired and the unit is title IV affected.

For the period in which the waste coal-fired unit has a power purchase contract in place, EPA examined the analysis presented by the commenters in support of their argument that CAIR compliance costs would threaten their economic viability. EPA believes the commenters' analysis substantially overestimated the potential compliance costs of CAIR and the CAIR FIP (by inaccurately accounting for the future projected cost of emitting one ton of SO<sub>2</sub>, underestimating access to title IV SO<sub>2</sub> allowances through the title IV opt-in provisions, and inaccuracies in other analytical assumptions) and, when more realistic assumptions are correctly applied, these units are much better off. (Section VI.A of the CAIR FIP Response to Comment Document presents the results of this analysis.)

<sup>24</sup> Reduction in SO<sub>2</sub> from CFB units are EPA estimates based upon the design of the facilities.

As mentioned above, while waste coal-fired units have a valid power purchase agreement (and, subsequently, an exemption from title IV), they may choose to opt-in to the title IV program and receive SO<sub>2</sub> allowances. The title IV opt-in provisions provide units with SO<sub>2</sub> allowances based upon their heat input (*i.e.*, the average of their annual heat input for the years 1985 through 1987 or their first 3 whole years of operation) and their emission rate (*i.e.*, the lesser of their actual emission rate during the first baseline year or, their lowest permitted emission limit in year they apply that will be effective that year or any time after). As a result, these units could receive SO<sub>2</sub> allowances sufficient to authorize all of their future, annual emissions under the title IV program. Other units, that may operate more than they did during the baseline years, may receive SO<sub>2</sub> allowances from the title IV opt-in provisions at levels lower than their future emissions. Assuming the waste coal-fired units made no additional reduction in SO<sub>2</sub> emissions, this same opt-in allocation level would authorize half of their emissions, and require them to purchase SO<sub>2</sub> allowances equal to half of their emissions, under the first phase of CAIR or the CAIR FIP.<sup>25</sup> Considering that waste coal-fired CFB units generally achieve greater than 90 percent SO<sub>2</sub> emission reductions, the unit would purchase SO<sub>2</sub> allowances equal 5 percent of this total, uncontrolled emissions. The retirement ratio for the second phase of CAIR or the CAIR FIP would result in the sources purchasing SO<sub>2</sub> allowances equivalent to 7 percent of this uncontrolled emissions level (*i.e.*, two thirds of the remaining 10 percent of the uncontrolled emissions). From the evidence that EPA has been provided, the commenters have not demonstrated that purchasing allowances equal to approximately 5 percent or 7 percent of uncontrolled emissions in the phases 1 and 2 of the CAIR FIP (and CAIR), respectively, would result in the units not being economically viable.

The commenters concerns about the economic viability of waste coal-fired units continue for periods of time when the power purchase agreements have expired (*i.e.*, the units have lost the exemption from title IV) and the units are free to participate in the electricity markets. EPA addressed this concern by conducting additional analysis using generally available information to

evaluate the potential impact of the cost of complying with CAIR for a typical CFB combusting waste coal. More specifically, EPA examined how the potential cost to operate a typical waste coal-fired CFB unit (in \$/MWh) compares to the potential price it would receive on the electricity market. This analysis estimated the potential cost of producing electricity for a waste coal-fired CFB (including the cost of complying with CAIR) to be significantly less than the EPA projected wholesale price and the forecasted price of electricity. In general, waste coal-fired facilities will continue to be profitable, even when factoring in the cost of complying with CAIR.

EPA also notes that, upon the expiration of the power purchase agreements, waste coal-fired units will participate in the electricity markets and be required to comply with all applicable emission control programs, including the title IV Acid Rain Program, just as other coal-fired facilities. Some of these coal-fired units have installed emission control equipment, emit SO<sub>2</sub> at lower rates than the waste coal-fired units, and are complying with title IV while they compete in the electricity markets. Additionally, new units continue to come online and are economically viable even though they must acquire title IV SO<sub>2</sub> allowances on the market.

In addition, commenters mentioned that waste coal-fired facilities provide benefits outside of air emissions, such as assisting in the mitigation of waste coal impacts on the land. EPA notes that, in case of waste coal-fired units, there are a variety of avenues of potential relief for States that wish to assist these units as they transition to competitive markets. Options for States to encourage certain types of generation include, but are not limited to: Revenue from renewable portfolio standards (where waste coal-fired units can qualify); and providing valuable CAIR NO<sub>x</sub> annual and ozone season allowances, as well as mercury allowances under the Clean Air Mercury Rule (which are options in Pennsylvania, where most of the commenters waste coal-fired units are located). EPA also notes that, in the case of waste coal-fired units that have contended that they provide multimedia benefits, that they will have the flexibility to develop integrated, multi-pollutant compliance strategies under CAIR.

In summary, EPA does not agree with commenters that believe that complying with the CAIR FIP or CAIR SO<sub>2</sub> annual program would result in this category of units not being economically viable.

These units are designed to generate electricity for sale on the grid and are part of the power generation sector. The CAIR FIP and CAIR trading programs are designed to achieve emission reductions from EGUs while providing the flexibility for the markets to find the least-cost reductions. Once their contracts expire, waste coal-fired units, just as other coal-fired generation sources which may or may not receive title IV SO<sub>2</sub> allowances, will be expected to hold SO<sub>2</sub> allowances and compete in the electricity markets. In addition, the commenter has not provided analysis that demonstrates that waste coal-fired units, as a category, would not be economically viable as a result of CAIR. For these reasons, EPA has not included an exemption for waste coal-fired units or IPPs in the CAIR FIP or CAIR trading programs.

**Biomass-Fired Units under CAIR FIP.** EPA received comment that biomass-fired units should be exempt from the CAIR and CAIR FIP trading programs. These commenters claimed that their operations are similar to those of solid waste incineration units, which EPA proposed to exempt in the CAIR FIP NPR. Commenters added that they could meet fossil fuel use criteria used in the solid waste incineration unit exemption (*i.e.*, the average annual fuel consumption of non-fossil fuels not exceeding 80 percent for the years 1985–1987 (or for a unit commencing operation after January 1, 1985, the first 3 years of operation) and during any 3 consecutive calendar years after 1990). In addition, commenters noted that this would be consistent with the title IV exemptions for biomass-fired units as “qualifying facilities.”

EPA disagrees with commenters that request that biomass-fired EGUs be exempted from the CAIR and CAIR FIP trading programs because they are similar to solid waste incinerators. While biomass-fired EGUs may be able to meet the criteria for limited combustion of fossil fuel used in the solid waste incineration unit exemption in the CAIR and CAIR FIP trading programs, they differ from solid waste incineration units in that biomass-fired units are designed and operated for the purpose of generating electricity for sale. As a result, they are reasonably treated as part of the power generation sector, which comprises the category of sources the CAIR and CAIR FIP trading programs aimed at regulating. For this reason, EPA modeling for CAIR included biomass-fired EGUs as part of the power sector, which was shown to be able to make highly cost-effective SO<sub>2</sub> and NO<sub>x</sub> emission reductions. The marginal cost of control and the average

<sup>25</sup> Assumes sources receive title IV opt-in allowances equal to their current emissions. The 2-to-1 retirement ratio of CAIR's first phase requires CAIR sources to hold twice as many allowances.

cost of control, shown to be highly cost-effective, reflect a range of power sector control costs that include costs from sources such as biomass-fired units. Commenters did not provide any basis for changing EPA's treatment of biomass-fired units in the modeling or for challenging EPA's modeling results.

Biomass-fired units included in the CAIR and CAIR FIP trading programs are distinguishable from solid waste incineration units exempt from the CAIR and CAIR FIP trading programs. First, while the purpose of biomass-fired units are to generate electricity (and, in some cases, useful thermal energy), solid waste incineration units are designed and operated for the purpose of disposing of solid waste, with electricity generation incidental to this purpose. In fact, the term "solid waste incineration unit" excludes sources whose primary purpose is something other than waste disposal, such as "material recovery facilities \* \* \* which combust for the primary purpose of recovering materials" and "qualifying small power production facilities \* \* \* or qualifying cogeneration facilities \* \* \* which burn homogeneous waste for the production of electric energy \* \* \* for the production of electric energy and steam or forms of useful energy (such as heat) \* \* \*" (18 U.S.C. 7429(g)(1)). Thus, it was reasonable for EPA to treat biomass-fired units, but not solid waste incineration units, as part of the power sector. Second, as explained in the CAIR FIP NPR, emission reductions from solid waste incineration units, treated as a separate source category, were not considered in EPA's determination of highly cost-effective reductions from the power sector. Biomass-fired units were treated as part of the power sector, which was shown in EPA's modeling to be able to make highly cost-effective reductions.

EPA does not believe that the title IV exemption for qualifying biomass-fired units means that these units should be exempt from all cap-and-trade programs developed after the Acid Rain Program. Under the Acid Rain Program, an IPP facility (such as a biomass-fired unit) that has, as of November 15, 1990, a qualifying power purchase commitment (including a sales price) to sell at least 15 percent of planned net output capacity and has installed net output capacity not exceeding 130 percent of planned net output capacity is exempt from the program. However, if the power purchase commitment changes after November 15, 1990 in a way that allows the cost of compliance with the Acid Rain Program to be shifted to the purchaser, then the IPP facility loses the exemption. For example, expiration or

termination of the power purchase commitment or modification so that the price is increased (e.g., changed to a market price) results in loss of the exemption. The purpose of the exemption is to protect IPP facilities subject to contract prices that were set before passage of the CAA Amendments of 1990 (including the Acid Rain Program in title IV) and that did not allow pass through of the costs of Acid Rain Program compliance. However, EPA maintains that this exemption was aimed at easing the transition of such facilities into the Acid Rain Program and that there is no basis for maintaining this exemption for every subsequent cap-and-trade program.

Under the CAIR trading programs, a biomass-fired unit can be allocated NO<sub>x</sub> allowances, just as any other CAIR unit. Further, although biomass-fired units are not generally allocated title IV allowances, which are used in the CAIR SO<sub>2</sub> annual trading program, those units can opt into the Acid Rain Program and receive title IV allowances as long as they retain their IPP exemption. If they lose the exemption because they are no longer bound by their power purchase commitment, then they can pass through compliance costs to the same extent any CAIR unit can do so.

For the reasons discussed above, the EPA is not including an exemption from the CAIR and CAIR FIP trading programs for biomass-fired units in today's final rule.

*Low Emissions Units Under CAIR FIP.* EPA received comment requesting that units with low emissions, such as units that emit less than 25-tons annually, be exempt from the CAIR and CAIR FIP trading programs. This includes simple cycle turbines that are operated infrequently, primarily during peak demand or when there are operational difficulties with baseload units. Commenters claim that the cost of monitoring and reporting their emissions is excessively burdensome and that special provisions in part 75 monitoring for low mass emitting (LME) units does not provide adequate relief.

Today's final CAIR FIP trading rules do not include an exemption for low emitting units. While low emitting, these units are designed and operated for the purposes of generating electricity for sale. As a result, they are reasonably treated as part of the power generation sector, which comprises the category of sources the CAIR and CAIR FIP trading programs aimed at regulating. For this reason, low-emitting units were included as part of the power sector, which was shown through EPA modeling for CAIR to be able to make highly cost-effective emission

reductions. The marginal cost of control and the average cost of control, shown to be highly cost effective, reflect a range of power sector control costs that include costs from low-emitting units (including simple-cycle turbines).

Commenters advocating an exemption of these units did not provide any basis for changing EPA's treatment of these units in the modeling or for challenging EPA's modeling results.

The NO<sub>x</sub> SIP Call did include an exemption for units that could demonstrate that their permits imposed an operating hour limitation under which their potential emissions during the ozone season did not exceed 25 tons (the "25-ton exemption"). Units wishing to obtain the 25-ton exemption were required to use conservative emission estimates of their potential emissions and State budgets were adjusted to remove the equivalent of their potential emissions from that State's trading program budget. In general, this exemption was undersubscribed and complex. EPA also notes that it received little comment on including a 25-ton exemption, with only a single facility claiming that this exemption is necessary. EPA does not see compelling justification to include this exemption in the CAIR and CAIR FIP trading programs.

EPA does not agree with commenters that contend that the LME provisions do not adequately relieve the cost of monitoring and reporting for low emitting units. The part 75 LME provisions provide qualifying sources with multiple options to allow facilities to choose the approach that best fits their circumstances. First, units may choose to use EPA-provided, conservative emission factors in lieu of installing and operating Continuous Emissions Monitoring Systems (CEMS). The LME provisions provide a second option that allows facilities to determine unit-specific emission factors for use in estimating their annual emissions. Additionally, EPA provides the software necessary to generate the quarterly emissions reports for these sources to further lessen the burden on these sources. These streamlined monitoring and reporting procedures relieve much of the administrative burden, and therefore, the compliance costs, for LME qualifying units. This allows EPA to accurately and cost-effectively account for the emissions, even at low emission levels, and allow these units to participate in the CAIR trading programs.

### *F. Allocation of NO<sub>x</sub> Emission Allowances to Sources*

The EPA presented in the NPR (70 FR 49730–49734) its proposed schedules and methods for allocating NO<sub>x</sub> allowances to sources, including allowances for the CAIR FIP NO<sub>x</sub> annual trading program and the CAIR FIP NO<sub>x</sub> ozone season trading program. The Agency proposed to use NO<sub>x</sub> allocation methods that are consistent with the NO<sub>x</sub> allocation methods in the CAIR SIP model trading rules.

As discussed above, the Agency proposed that a State could choose to modify the application of the FIP through abbreviated SIP revisions that would allow the State, rather than EPA, to allocate NO<sub>x</sub> annual and/or ozone season allowances for the CAIR FIP trading programs.

The EPA proposed formulas for EPA-determined allocations of NO<sub>x</sub> allowances to units (both existing units with sufficient baseline data and new units) under the CAIR FIP trading programs. Further, the Agency proposed schedules for applying the allocation formulas and for determining such NO<sub>x</sub> allocations for the CAIR FIP trading programs. The EPA also proposed schedules for States to apply State-determined allocation formulas under abbreviated SIP revisions. In addition, EPA proposed a schedule for the Administrator to record NO<sub>x</sub> allocations (whether EPA- or State-determined) in source accounts.

The EPA received a number of comments on each of these elements of its proposed schedules and methods for NO<sub>x</sub> allocations. The Agency discusses the comments and presents the final schedules and methods for NO<sub>x</sub> allocations below.

See section VI.I in today's preamble for a discussion of the Agency's method for distributing FIP NO<sub>x</sub> annual allowances from the NO<sub>x</sub> annual CSP.

#### 1. Schedule for Determining and Recording NO<sub>x</sub> Allocations

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

While EPA's proposal included schedules for determining and recording NO<sub>x</sub> allocations for both existing units with sufficient baseline data and new

units, this section of the preamble—and the public comments—focus on the allocations for existing units.<sup>26</sup>

As discussed further below, EPA intends to determine NO<sub>x</sub> allocations for the CAIR FIP trading programs by October 31, 2006 (covering 2009–2014). For any State choosing to determine CAIR FIP NO<sub>x</sub> allocations using an abbreviated SIP revision, the deadline for States to notify EPA of their first set of NO<sub>x</sub> allocations (covering at least 2009–2011) is April 30, 2007. The Agency will record EPA-determined allocations for the CAIR FIP trading programs by September 30, 2007 (covering 2009), September 30, 2008 (covering 2010) and September 30, 2009 (covering 2011–2013). If State-determined NO<sub>x</sub> allocations are approved earlier than these recordation deadlines (under a full SIP revision or an abbreviated SIP revision), the Agency intends to record the State-determined allocations in source accounts rather than EPA-determined allocations, as soon as possible. Table VI–2, below, summarizes the final deadlines for recording CAIR FIP NO<sub>x</sub> allocations (EPA-determined allocations or State-determined allocations using an abbreviated SIP revision). Table VI–3 summarizes the final deadlines for recording CAIR SIP NO<sub>x</sub> allocations for States choosing to use the CAIR model trading rules (full SIP revisions).

As discussed in the NPR, the Agency developed proposed schedules for recording CAIR FIP NO<sub>x</sub> allocations for existing units in source accounts with the objective of balancing the following two goals: (1) Providing both adequate certainty to sources regarding their CAIR NO<sub>x</sub> allocations and adequate time for sources to make compliance decisions, and (2) providing States choosing to allocate CAIR NO<sub>x</sub> allowances with time to submit, and EPA to approve, abbreviated or full SIP revisions that provide for State-determination of allowance allocations.

The final CAIR (70 FR 25162) requires States to submit SIP revisions complying with the CAIR requirements to the Agency by September 11, 2006 and to submit the initial set of NO<sub>x</sub> allocations by October 31, 2006.

In the CAIR FIP NPR, the Agency proposed that States choosing to submit abbreviated SIP revisions would be required to submit such revisions to EPA by March 31, 2007, and—if choosing to address NO<sub>x</sub> allocations in an abbreviated SIP revision—would be

required to submit the initial set of NO<sub>x</sub> allocations by September 30, 2007. The EPA proposed allowing States to submit abbreviated SIP revisions later than full revisions because the Agency anticipates being able to complete the approval process more quickly for abbreviated revisions due to their narrower scope.

The Agency stated in the FIP NPR its intention to determine final NO<sub>x</sub> allocations for 2009 through 2014 for the FIP trading programs prior to December 1, 2007 (70 FR 49732). The EPA has further considered its plans for determining these final NO<sub>x</sub> allocations and now intends to determine them by October 31, 2006. The Agency intends to publish a Notice of Data Availability (NODA) during spring 2006 with NO<sub>x</sub> allocations for 2009 through 2014. The public will have an opportunity to make objections to any of the data used in these allocations. EPA will publish a NODA with the final NO<sub>x</sub> allocations for 2009 through 2014 (adjusted if necessary in light of any objections) by October 31, 2006. In this manner, the Agency intends to provide earlier notice to sources of the EPA-determined NO<sub>x</sub> allocations.

The EPA proposed to determine NO<sub>x</sub> allocations by July 31, 2011 and July 31 of each year thereafter for the control period in the fourth year after the year of the deadline for the determination and then to provide opportunity for submission of objections to the determination. The EPA would make any necessary adjustments to the allocations in light of any objections, before the deadline for EPA to record the allocations. The EPA is now finalizing this schedule. For example, the Agency will determine allocations by July 31, 2011 for the 2015 control period and then provide opportunity for submission of objections. The Agency intends to make any necessary adjustments to these allocations, in light of any objections, as soon as possible after the receipt of objections and before the recordation deadline<sup>27</sup> of December 1, 2011. As discussed further below, the Agency intends to record EPA-determined NO<sub>x</sub> allocations in source accounts only in the absence of a timely, approved full CAIR SIP revision or a timely, approved abbreviated CAIR SIP revision providing for State-determined allocations.

The EPA presented in the FIP NPR its proposed deadlines for recording NO<sub>x</sub> allocations in source accounts for the CAIR FIP trading programs (see Table

<sup>26</sup> The Agency is finalizing the proposed schedules for determining and recording FIP NO<sub>x</sub> allocations for new units; see §§ 97.141, 97.341, 97.153 and 97.353.

<sup>27</sup> Recordation deadline means the date by which the Administrator will record allocations in source accounts in the allowance tracking systems.

VI-1 in the NPR at 70 FR 49732.) The proposed recordation deadlines for FIP NO<sub>x</sub> allocations were as follows: By December 1, 2007 for the 2009 control period; by December 1, 2008 for the 2010 control period; by December 1, 2009 for the 2011, 2012 and 2013 control periods; by December 1, 2010 and December 1 of each year thereafter for the control period in the fourth year after the recordation deadline. These proposed recordation deadlines were the latest dates by which EPA proposed to record NO<sub>x</sub> allocations for the CAIR FIP trading programs. The EPA proposed to record EPA-determined NO<sub>x</sub> allocations *only* in the absence of a timely, approved full CAIR SIP revision or a timely, approved abbreviated CAIR SIP revision providing for State-determined NO<sub>x</sub> allocations. The Agency intended to record any NO<sub>x</sub> allocations determined by a State using an abbreviated SIP revision as soon as feasible after approval of the abbreviated SIP revision; EPA did not intend to wait until the proposed deadlines to record such State-determined allocations. Likewise, the Agency intended to record any NO<sub>x</sub> allocations determined by a State using a full SIP revision as soon as feasible after approval of the full revision (and according to the recordation deadlines in the CAIR SIP rules at §§ 96.153 and 96.353).<sup>28</sup>

In the FIP NPR (70 FR 49739), the Agency proposed to remove the deadline to record NO<sub>x</sub> allocations for the first set of years submitted in a SIP revision (*i.e.*, in a full SIP revision) that used the model allocation method in part 96, but to retain the deadlines to record the subsequent allocations. The CAIR NO<sub>x</sub> model trading rules, as finalized at 70 FR 25162, required the Administrator to record the initial set of NO<sub>x</sub> allocations submitted by the States by December 1, 2006 (§§ 96.153 and 96.353). However, since the SIP revisions that include such allocations are not due until September 11, 2006, it is highly unlikely that all the SIP revisions will be approved by EPA in time for the allocations to be recorded by December 1, 2006. CAIR NO<sub>x</sub> allowance allocations should not be recorded, and thereby be tradable in the allowance market, before the SIP revision on which the allocations are based is final; it would be highly

disruptive to the allowance market if allocations that are recorded and could be traded could subsequently be rendered invalid due to disapproval of the SIP revision on which the allocations are based.

The Agency's proposal to remove the deadline to record the first set of NO<sub>x</sub> allocations submitted in a full SIP revision did not include an alternative recordation deadline. Some commenters suggested that EPA should set an alternative deadline, and one commenter suggested that the deadline should be within 30 to 60 days following EPA approval of a State's SIP revision. The Agency is finalizing a recordation deadline of September 30, 2007 for the first set of NO<sub>x</sub> allocations submitted with a full SIP revision. This recordation deadline is based on the Agency's belief that full SIP revisions can be approved in about a year from submission, that is by about September 2007.

Some industry commenters who supported the abbreviated SIP revision approach did not support the proposed schedule for abbreviated revisions, in particular with regard to the schedule for NO<sub>x</sub> allocations. Some suggested that abbreviated SIP revisions should be due on the same schedule as full SIP revisions (*i.e.*, that the deadline for abbreviated SIP revisions should be September 11, 2006, instead of March 31, 2007 as proposed) or, as suggested by one commenter, on an even earlier schedule than full SIP revisions. Similarly, some suggested that the deadline for the first set of NO<sub>x</sub> allocations submitted with an abbreviated SIP revision should be the same as the NO<sub>x</sub> allocations deadline for a full SIP revision (*i.e.*, that the deadline for allocations in an abbreviated revision should be October 31, 2006, instead of the proposed deadline).<sup>29</sup> Some commenters suggested that sources should be provided earlier knowledge of their allocations in order to plan for compliance.

A State commenter asserts that submitting an abbreviated SIP revision under the proposed schedule will be problematic for some States that may not be able to complete a State rulemaking prior to the deadline for such submission.

The EPA is finalizing the proposed March 31, 2007 deadline for submission of abbreviated SIP revisions to the Agency. Because of the narrower scope of abbreviated SIP revisions, EPA anticipates that it will be able to complete the approval process more quickly for such revisions than for full SIP revisions. The EPA believes that it can approve abbreviated SIP revisions in about 6 months from submission. With abbreviated SIP revisions due to the Agency about 6 months later than the deadline for full SIP revisions, EPA anticipates that approval for both types of submissions would be feasible by about the same time, that is by about September 2007.

The Agency is finalizing a deadline of April 30, 2007—instead of September 30, 2007 as proposed—for States to submit to EPA their first set of NO<sub>x</sub> allocations associated with an abbreviated SIP revision (covering at least 2009, 2010 and 2011). The Agency revised this deadline in order to provide sources with an earlier opportunity to have notice of the State-determined NO<sub>x</sub> allocations.

A few industry commenters argued that the deadlines for recording NO<sub>x</sub> allocations in source accounts for the CAIR FIP trading programs should be earlier than proposed, to provide earlier knowledge to sources of their allocations. One recommended that NO<sub>x</sub> allocations for the CAIR FIP trading programs—whether determined by EPA or determined by a State using an abbreviated SIP revision—be recorded in source accounts by December 1, 2006 for 2009 through 2011.

Another industry commenter suggested that, if a State fails to meet the October 31, 2006 deadline for allowance allocations in a full SIP revision, EPA should immediately record the FIP allowance allocations. The same commenter also suggested that NO<sub>x</sub> allocations should be recorded in source accounts a minimum of 3 years prior to the date they can be used for compliance and asserted that, if a source did not know until a year before the compliance deadline what its allocation will be, the source “would be completely unable to plan for compliance.”

A State commenter suggests that the requirements for notification of allocations under CAIR SIP trading programs and the CAIR FIP trading programs should be the same. According to the commenter, if EPA finalizes a lead time for recording NO<sub>x</sub> allocations under the CAIR FIP trading programs of less than 3 years for the first 4 control periods, “the same flexibility

<sup>28</sup> The FIP NPR preamble contained an inaccurate statement regarding proposed NO<sub>x</sub> allocation recordation deadlines. The preamble (70 FR 49731) indicated that the recordation deadlines would be the same whether the allocations were in a full SIP revision or in an abbreviated revision; however the proposed recordation deadlines relevant to abbreviated revisions are different from deadlines for full SIP revisions.

<sup>29</sup> The deadline that EPA proposed for submitting NO<sub>x</sub> allocations with an abbreviated SIP revision is September 30, 2007 for 2009, 2010 and 2011, as specified in the proposed regulatory text at § 51.123 (70 FR 49746). Through an inadvertent error the preamble to the NPR listed a different date; the preamble indicated that the proposed deadline for such allocations would be October 31, 2007 (70 FR 49731).

should be extended to approved CAIR SIP trading programs.”

In determining the final NO<sub>x</sub> allocation recordation deadlines, abbreviated SIP submission deadlines, and schedules for determining NO<sub>x</sub> allocations, the Agency is balancing the goals of (1) providing information in advance to source owners and operators regarding their future CAIR NO<sub>x</sub> allocations in order to facilitate their decision-making concerning compliance with the requirements to hold allowances and (2) providing States choosing to allocate CAIR NO<sub>x</sub> allowances sufficient time to prepare and submit SIP revisions (full or abbreviated revisions) setting forth the State allocation methodology and prepare and submit unit allocations for specific years and providing EPA sufficient time to review and approve these SIP revisions and record these unit allocations. The EPA made adjustments to the proposed NO<sub>x</sub> allocation schedules in response to public comments received on the proposal. The Agency believes that the final schedules achieve a reasonable balance between these goals within the constraints of the available time.

The Agency is finalizing a deadline of September 30, 2007 (instead of December 1, 2007 as proposed) for recording NO<sub>x</sub> allocations for 2009 for the CAIR FIP trading programs, whether EPA-determined or State-determined using an abbreviated SIP revision. This is the same deadline that EPA is finalizing for recording the first set of State-determined NO<sub>x</sub> allocations in a full SIP revision, as discussed above. This is the earliest feasible recordation date based on EPA's assumption that it will take about a year to approve a full revision and about 6 months to approve an abbreviated revision. The EPA would like to stress that, if State-determined NO<sub>x</sub> allocations are approved earlier than this deadline (under a full SIP revision or an abbreviated SIP revision) the Agency intends to record the State-determined allocations in source accounts as soon as possible. The Agency does not intend to wait until the recordation deadline to record State-determined allocations and will record EPA-determined allocations for 2009 by this deadline in the absence of an approved full SIP revision or an approved abbreviated SIP revision providing for State-determined allocations.

Similarly, the Agency is finalizing a recordation deadline of September 30, 2008 (instead of December 1, 2008) for recording CAIR FIP NO<sub>x</sub> allocations for 2010; and September 30, 2009 (instead of December 1, 2009) for recording CAIR

FIP NO<sub>x</sub> allocations for 2011, 2012 and 2013. The Agency does not intend to wait until these deadlines to record State-determined allocations and will record EPA-determined allocations for 2010, 2011, 2012 and 2013 according to these deadlines in the absence of an approved full SIP revision or an approved abbreviated SIP revision providing for State-determined allocations. The Agency will record EPA-determined allocations in source accounts one year at a time for 2009 and 2010 in order to provide flexibility to States to determine allocations for their sources.

Beginning with allocations for the 2014 compliance year, EPA is finalizing the proposed recordation deadlines for CAIR FIP NO<sub>x</sub> allowances. That is, beginning with the 2014 control period and for each control period thereafter, EPA intends to record NO<sub>x</sub> allocations for the CAIR FIP trading programs in source accounts by December 1 of each year for the control period 4 years after the year in which the allocations are recorded. This approach will provide sources with their allocations about 3 years in advance. For example, EPA will record FIP allocations for the 2014 control period by December 1, 2010. The Agency will record EPA-determined allocations only in the absence of an approved full SIP revision or an approved abbreviated SIP revision providing for State-determined allocations.

Table VI–2, below, summarizes the final NO<sub>x</sub> allocation recordation deadlines for the CAIR FIP trading programs. Deadlines for future control periods not shown in the table follow the same pattern shown for 2014 through 2016. Note that these are the latest dates by which EPA will record CAIR FIP NO<sub>x</sub> allocations. The EPA intends to record State-determined CAIR FIP NO<sub>x</sub> allocations as soon as possible after approval of abbreviated SIP revisions.

TABLE VI–2.—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 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.

As discussed in the FIP NPR (70 FR 49731), EPA acknowledges that it is preferable for source owners and operators to have at least 3 years lead time with regard to allowance allocations when feasible. A shorter lead time would reduce the period for buying or selling allowances and could prevent sources from participating in allowance futures markets, a mechanism for hedging risk and lowering costs (CAIR NFR, 70 FR 25279). Although lead time may impact the selection of trading strategies, as discussed further below, EPA believes that the selection of compliance methods (*e.g.*, installation of emission control technology, fuel switching, or allowance purchases) should not be impacted by the amount of allowances a source is allocated for a given year.

The final schedule for recording NO<sub>x</sub> allocations for the CAIR FIP trading programs in today's rulemaking provides that allocations will be recorded with at least 3 years lead time in all but the initial 4 compliance years. For those initial years, the Agency will work with the States to be able to record State-determined NO<sub>x</sub> allocations as soon as feasible and will record EPA-determined allocations by the recordation deadlines in the absence of timely, approved full SIP revisions or timely, approved abbreviated SIP revisions providing for State-determined allocations.

Table VI–3, below, summarizes the final recordation deadlines for NO<sub>x</sub> allocations for the CAIR SIP model trading rules (*i.e.*, NO<sub>x</sub> allocations contained in full SIP revisions). Deadlines for future control periods not shown in the table follow the same pattern shown for 2015 and 2016. The EPA intends to record State-determined allocations as soon as possible after approval of full SIP revisions.

TABLE VI–3.—RECORDATION DEADLINES FOR CAIR SIP MODEL RULE NO<sub>x</sub> ALLOCATIONS

CAIR control period	Deadline by which SIP NO <sub>x</sub> allocations are recorded (for States choosing to use the CAIR SIP model rules)
2009 .....	September 30, 2007.
2010 .....	September 30, 2007.
2011 .....	September 30, 2007.
2012 .....	September 30, 2007.
2013 .....	September 30, 2007.
2014 .....	September 30, 2007.
2015 .....	December 1, 2009.
2016 .....	December 1, 2010.

It is likely that source owners and operators will know or at least have a reasonable understanding of the likely

amounts of their NO<sub>x</sub> allocations substantially earlier than the deadlines for recording allocations in source accounts. States submitting full CAIR SIP revisions must notify EPA of their initial set of unit-by-unit NO<sub>x</sub> allocations (covering at least 2009, 2010 and 2011) by October 31, 2006. As indicated in the CAIR, the States have broad discretion in making unit-by-unit allocations, and EPA's review will center on whether the total allocations in a given year exceed the State's trading budget. See §§ 51.123(o)(2)(ii)(A) and (aa)(2)(iii)(A). The Agency intends to determine unit-by-unit NO<sub>x</sub> allocations for the initial compliance years of the CAIR FIP trading programs by the same date, October 31, 2006 (covering 2009 through 2014). States submitting abbreviated SIP revisions must notify EPA of their unit-by-unit NO<sub>x</sub> allocations for the CAIR FIP trading programs by April 30, 2007 (covering at least 2009, 2010 and 2011). As is the case for States submitting full SIP revisions, EPA's review of unit-by-unit allocations will center on ensuring that the State budget would not be exceeded.

Moreover, through each State's public rulemaking, adjudicative, and/or legislative processes for determining allocations, source owners and operators will likely be aware of their State's plans regarding NO<sub>x</sub> allocations even in advance of the deadlines by which the States must submit their unit-by-unit allocations to EPA. For example, the public is likely to know whether the State is planning to allocate using the example NO<sub>x</sub> allocation method provided in the CAIR SIP model rules, or what alternative allocation method the State is planning to use. This knowledge would give owners and operators a sense for what their allocations will be.

An industry commenter asserted that, if a source did not know until a year before the compliance deadline what its allocation will be the source "would be completely unable to plan for compliance," stating as a reason "it takes longer than a year to install the controls that might be necessary to meet an unexpectedly low allocation." Another commenter asserted that "Sources use the period of time between finalization of source-by-source allocations and the control period to plan and implement any strategy necessary to achieve compliance." The Agency disagrees with these arguments. The EPA believes—and general economic theory suggests—that for owners and operators of sources covered by CAIR trading programs, the determination regarding what will be

the lowest cost compliance methods (e.g., installation of emission control technology, fuel switching, or allowance purchases) should not be impacted by the amount of allowances a source is allocated for a given year.

The Agency believes the decision to install NO<sub>x</sub> control technology will be made based on evaluating the cost to that source of installing controls compared to the price of NO<sub>x</sub> allowances in the allowance market. For a particular source, if the cost to control a ton of NO<sub>x</sub> emissions is lower than the NO<sub>x</sub> allowance price, then the source will likely choose to control emissions. This is the case regardless of the amount of allowances allocated to the source since using an allocated allowance to cover emissions has an opportunity cost (i.e., the value of that allowance if it were sold in the allowance market) just as using a purchased allowance to cover emissions has a cost (i.e., the price of purchasing that allowance in the allowance market).

Such a source may choose to over-control and make greater reductions than those required on average by the NO<sub>x</sub> trading program cap either to free up allocated allowances that can then be sold for more than it cost to free up the allowances or in order to avoid purchasing allowances in the allowance market. In contrast, for a particular source, if the cost to control a ton of NO<sub>x</sub> emissions is higher than the NO<sub>x</sub> allowance price, the source will likely choose to use allocated allowances or buy allowances to cover its NO<sub>x</sub> emissions since that will cost less than installing control technology.

The Agency strongly urges States to submit CAIR SIP revisions (full or abbreviated revisions) to EPA in a timely manner. The EPA will endeavor to work with States to ensure that the Agency can timely approve SIP revisions and record State NO<sub>x</sub> allocations in source accounts.<sup>30</sup> However, once EPA-determined NO<sub>x</sub> allocations are recorded for a particular control period (which would only occur

in the absence of a timely, approved full CAIR SIP revision, or a timely, approved abbreviated CAIR SIP revision providing for State-determined allocations), EPA intends not to record overlapping State-determined allocations for that same control period. Rather, EPA will work with the States to approve SIP revisions with State allocations for control periods after the last control period for which EPA-determined allocations have been recorded in source accounts. It would be highly disruptive to the allowance market if EPA-determined allocations that had been recorded and could be traded in the market could subsequently be rendered invalid due to approval of overlapping State allocations for the same control period.<sup>31</sup>

For States choosing to submit full SIP revisions for CAIR, the Agency suggests they consider designating any of the 4 specific elements that can be included in abbreviated SIP revisions (e.g., NO<sub>x</sub> allocations) as being submitted for purposes of both a full SIP revision and an abbreviated SIP revision. Because the Agency anticipates that it will be able to approve abbreviated SIP revisions more quickly than full SIP revisions, a State's designation of its NO<sub>x</sub> allocations as an abbreviated SIP revision (as well as part of a full SIP revision) may result in EPA being able to approve the allocations portion more quickly and being able to record the State-determined unit-by-unit allocations sooner.

The Agency intends to work with any State choosing to allocate NO<sub>x</sub> allocations (whether through a full SIP revision or an abbreviated SIP revision) and to ensure that the State's allocations, rather than EPA-determined allocations, will be recorded as soon as possible.

The Clean Air Act is designed to give States the first obligation (and opportunity) to prevent significant contribution to a downwind State's nonattainment problems. The EPA only acts in the case where a State does not meet this obligation. The Agency is promulgating CAIR FIPs as soon as possible to assure downwind States that emission reductions will occur in time to help them meet their nonattainment deadlines. Even though EPA is

<sup>30</sup> EPA believes that, if a State submits its CAIR SIP revision later than the submission deadline (September 11, 2006 or March 31, 2007 for a full or abbreviated SIP revision, respectively), it is unlikely that there will be adequate time for the Agency to review and approve the SIP revision and record State-determined NO<sub>x</sub> allocations by the recordation deadline under the FIP for the 2009 compliance year. For a CAIR SIP revision submitted after its deadline, EPA intends to withdraw FIP requirements in a State as soon as practical after receiving approvable SIP revisions and will work with any State to ensure a timely withdrawal of the FIP and recording of State NO<sub>x</sub> allocations in source accounts. The deadlines for recording CAIR FIP NO<sub>x</sub> allocations and CAIR SIP NO<sub>x</sub> allocations are presented above in Tables VI-2 and VI-3, respectively.

<sup>31</sup> The discussion in this section focuses on the time frame in which EPA plans to record EPA-determined allocations in order to coordinate with the approval of SIP revisions and the recordation of State allocations, assuming States choose to participate in the EPA-administered CAIR NO<sub>x</sub> trading programs. The Agency will also carefully consider the timing of a transition from federal to State-implemented programs for any States choosing to use a method other than the EPA-administered CAIR SIP trading programs to meet their CAIR obligations.



promulgating FIPs, the Agency recognizes that the Clean Air Act assigns first responsibility to the States, and it is EPA's preference to defer, wherever possible, to States the decisions about control mechanisms to prevent significant contribution, including States' decisions about allocation of NO<sub>x</sub> allowances.

## 2. Method for Allocating NO<sub>x</sub> Allowances

### *Proposed NO<sub>x</sub> Allocation*

**Methodology.** In the NPR, EPA proposed a NO<sub>x</sub> allocation approach for both annual and ozone season allowances that is consistent with the example methodology presented in the CAIR SIP model trading rules. The proposed methodology was the same for annual NO<sub>x</sub> allowances and for ozone season NO<sub>x</sub> allowances, except that the ozone season method uses ozone season heat input not annual heat input.

For existing units, the proposed NO<sub>x</sub> allocation methodology used input-based allocations, adjusting the heat input by factors based on fuel type (described later in this section). As in the example allocation methodology in the CAIR SIP model trading rules, for existing units the Agency proposed to use heat input based on the average of the 3 highest amounts of a unit's adjusted heat input for 5 years (2000 through 2004). The EPA took comment on using heat input based on 3 or 4 years of data rather than 5 years.

For new units that have established baselines, EPA proposed that allocations would be based on generation using a modified output approach to convert output to heat input (described below), and allocations to existing units would be updated to take into account new generation, because new units would receive allocations from the pool of allowances shared with existing sources. New units that have not yet established baseline data would receive allowances from a new unit set-aside.

The Agency proposed that EPA would allocate allowances to existing units from the State's EGU NO<sub>x</sub> budget for the first 6 control periods (2009 through 2014) for existing sources on the basis of historic baseline heat input. Consistent with CAIR, EPA proposed January 1, 2001 as the proposed cut-off on-line date for considering units as existing units. Allowances for 2015 and later would be allocated from the State's EGU NO<sub>x</sub> budget annually, 3 years in advance. These allocations would take into account output data from new units with established baselines (modified by heat input conversion factors to yield heat input numbers, as described below). As new units enter into service

and establish a baseline, they would be allocated allowances in proportion to their share of the total calculated region-wide heat input. Allowances allocated to existing units would slowly decline as their share of total calculated heat input decreases with the entry of new units. (Note that once a baseline heat input was established for existing units, this baseline heat input would not change).

EPA proposed to allocate allowances from a new unit set aside to new units that have entered service but have not yet established a 5-year baseline. The allowances from the set-aside would be distributed based on a unit's reported emissions from the previous control period, which would provide allowances for use in meeting the allowance-holding requirement during the interim period before the unit would be allocated allowances on the same basis as existing units.

Consistent with the CAIR SIP example allocation methodology, the new unit set-aside would be equal to 5 percent of a State's emission budget for the years 2009–2013 and 3 percent of a State's emission budget for subsequent years. New units would begin receiving allowances from the set-aside for the control period immediately following the control period in which the new unit commences commercial operation, based on the unit's emissions from the preceding control period. EPA would allocate allowances from the set-aside to all new units in any given year as a group. If there were more allowances requested than exist in the set-aside, allowances would be distributed on a pro-rata basis.

EPA received a number of comments on various aspects of the proposed NO<sub>x</sub> allocation methodology. First, while most commenters were supportive of allocating allowances to existing units using historic heat input, some commenters advocated the use of output data for determining allocations, suggesting that such an approach would reward cleaner, more efficient generation, particularly with updating.

Second, most commenters supported the use of a 5-year baseline for allocating allowances based on heat input, noting that a longer period of data collection is more likely to capture a unit's normal operating conditions. One commenter suggested that a shorter baseline period would allow new sources to enter the existing source pool in a more timely manner and thus provide existing sources with more certainty.

One commenter requested clarification on the treatment of replacement units under the allocation

provisions, regarding whether they would be treated as new units, and have to reestablish a baseline, or maintain their allowance allocation similarly to retired units.

Several industry commenters made suggestions regarding the use of new unit set-asides in the FIP NO<sub>x</sub> allocation methodology. Some stated that EPA should provide that unused allowances from the set-aside would be returned to existing units. The Agency proposed to do so, and is finalizing that any unallocated allowances that remain in the new unit set-asides will be allocated on a prorated basis to the units that received allocations. See §§ 97.142(d) and 97.342(d). One commenter argued against using a new unit set-aside. Another commenter supported the use of a set-aside but argued that new units should be provided access to allocations during their initial year of operation.

In today's rule, EPA is finalizing most of the NO<sub>x</sub> allowance allocation provisions as proposed. First, EPA is finalizing the use of an input-based approach for allocating allowances. This approach uses a baseline heat input comprised of operating data from the years 2000–2004, and uses the average of the 3 highest heat input years from this time period for allowance allocation calculations for existing units. This baseline heat input will not be updated over time.

EPA believes, as it stated in the final CAIR, that allocating to existing units based on a baseline of historic heat input data, rather than output data, is desirable because accurate protocols currently exist for monitoring this data and reporting it to EPA, and several years of certified data are available for most of existing units. EPA has chosen not to utilize an updating system for allocating allowances, in order to avoid the subsidization of increased fuel use (or increased electricity generation) and the associated market distortions. If allocations were based on updated heat input (or updated output) data then increased fuel use (or increased electricity generation) would result in increased future allocations and thus would in effect be subsidized.

For new units, EPA is finalizing the use of the proposed modified output approach for calculating baseline heat input, described in detail below, as well as the allocation to new units without a baseline from a new unit set aside of 5 percent of a State's emission budget for the years 2009–2013 and 3 percent of a State's emission budget for subsequent years.

The Agency believes that it is reasonable to provide a set-aside for allocations to new units and further

believes that it is reasonable not to provide access to allocations for a new unit during its initial year of operation. The Agency's final methodology provides allocations to new units based on the prior year's emissions until the new unit establishes a baseline and is allocated as an existing unit. The methodology does not provide allowances to a unit in its first year of operation; however, it is straightforward, reasonable to implement, and predictable (see preamble to final CAIR, 70 FR 25281).

As in the CAIR SIP example methodology, after 5 years of operation, a new unit will have an adequate operating baseline of output data to be incorporated into the calculations for NO<sub>x</sub> allocations for existing units. (However, as discussed below in section VII of this preamble, allowances are allocated to existing units several years in advance, and a new unit with a baseline may need to continue to get allowances from the new unit set-aside for a few years after the unit's baseline is established.) The average of the highest 3 years from these 5 years will be multiplied by a heat-input conversion factor of 7,900 Btu/KWh to calculate the heat input value used to determine the new unit's allocation from the pool of allowances for existing units. New units will update the heat input numbers only once—for the initial 5-year baseline period after they start operating. As in the CAIR SIP example methodology, existing units as a group will not update their heat input. This eliminates the potential for a generation subsidy because current or future operating behavior will not impact the units' allocations. Retired units will continue to receive allowances indefinitely, thereby avoiding creation of a disincentive to retire less efficient units.

As discussed in section VII in today's preamble, EPA is adopting technical changes to the SIP rules that make it clear that a separate request for new-unit-set-aside allowances must be submitted for each control period for which they are sought and must be submitted by May 1 (rather than July 1) of that control period; the final FIP rules are consistent with these technical changes.

Regarding replacement units, EPA's allocation approach allows such units to retain their NO<sub>x</sub> allowance allocation, so as not to provide a disincentive to replace (e.g., repower) older, less-efficient units. As discussed in section VII in today's preamble, a definition of "replacement" has been added and the definition of "commence commercial operation" has been clarified in the

CAIR SIP model trading rules in order to clarify the treatment of replacement units. The final CAIR FIP rules are consistent with these changes in the SIP rules.

*Adjustments to Heat Input Data by Fuel Factors.* In the NPR, EPA proposed an allocation methodology based on the example allocation methodology in the CAIR SIP model rules, which included adjustments to heat input by fuel type, using fuel adjustment factors that are based on average historic NO<sub>x</sub> emissions rates by 3 fuel types (coal, natural gas, and oil) for the years 1999–2002. These adjustment factors are 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 factors reflect the inherently different emissions rates of different fossil fuel-fired units.

A number of commenters supported the use of the proposed fuel factors to adjust heat input, arguing that adjusting heat input for fuel type results in a more equitable allocation scheme that would provide allowances that are in closer proportion to historic emissions. Commenters supporting the use of fuel factors also noted that EPA should retain these fuel factors in order to maintain consistency with the model cap-and-trade rule, which would ease any necessary transitions from a CAIR FIP to a CAIR SIP if most States are expected to eventually adopt the model rule. One commenter opposing the use of fuel factors for individual unit allocations argued that adjusting baseline heat input for fuel use is inequitable and penalizes clean generation and is irreconcilable with EPA's "highly cost-effective" determination and EPA's air quality modeling. This same commenter also questioned EPA's legal authority to use fuel adjustment factors in the allocation of allowances.

EPA is finalizing the use of the proposed 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)), to adjust baseline heat input. EPA believes that these adjustment factors appropriately consider the inherently higher emissions rate of coal-fired units and the relatively greater burden on these units to control emissions.

EPA's determination that CAIR control levels are highly cost effective was assessed at the regional, rather than the State, level because of the ability of sources to meet control requirements through a regional cap-and-trade program for EGUs. While the chosen allocation methodology can affect the distribution of compliance costs under

the cap-and-trade program, it will have little effect on overall compliance costs or environmental outcome. This is because the incentives provided by cap-and-trade encourage economically efficient compliance over the entire region, as discussed above. The economically efficient outcome will not depend on the relative levels of individual unit allowance allocations.

For this same reason, air quality modeling is not relevant to the determination of allowance allocations, and a given allowance allocation approach, particularly one based on historic data, would have no effect on air quality modeling.

Finally, EPA disagrees with the commenter who questioned its legal authority to use this allocation scheme. The approach selected by EPA is reasonable, is supported by the information available to EPA and is well within the scope of EPA's authority to act. For further discussion of this issue, see the CAIR notice of final action on reconsideration signed the same day as the final FIP notice. While the reconsideration notice addresses the use of fuel factors in the context of determining the State NO<sub>x</sub> budgets, the same rationale applies to the use of fuel factors for individual unit allocations.

*Cogeneration Units.* In the NPR, EPA proposed that for a new cogeneration unit that is a boiler, annual heat input values used to calculate the unit's baseline heat input for purposes of allowance allocations would be determined by converting the available thermal output (Btu) of useable steam from the boiler to an equivalent heat input by dividing the total thermal output (Btu) by a standard boiler/heat exchanger efficiency rate of 80 percent. In today's rule, EPA is finalizing this approach.

For new cogeneration combustion turbines, EPA proposed in the NPR to calculate annual heat input for such a unit by: Converting the available thermal output of useable steam from a heat recovery steam generator (HRSG) to an equivalent heat input by dividing the total thermal output (Btu) by a standard boiler/heat exchanger efficiency rate of 80 percent; and then adding the equivalent heat input for the electrical generation from the combustion turbine, which is calculated by multiplying the turbine's generation (in KWh) by the conversion factor of 3,413 Btu/kWh. EPA is finalizing this approach as proposed.

One commenter suggested that EPA's approaches for allocating to new cogeneration boilers and combustion turbines be modified. This commenter argued that EPA's proposed

methodology improperly rewards new cogeneration units by not matching the rate of allocation with the degree of benefits realized by a specific cogeneration unit. The commenter further asserts that EPA's methodology would give a unit that only slightly improves its efficiency the same allowance allocation benefit as a unit that achieves a large increase in efficiency.

The commenter proposes an alternative allocation approach for cogeneration units, the primary goal of which is rewarding electricity as a higher value product than steam.

As EPA noted in the final CAIR preamble, steam and heat output, like electrical output, are useable forms of energy that can be utilized to power other processes. Because it would be nearly impossible to adequately define the efficiency in converting steam energy into the final product for each of the various processes and uses for these outputs, EPA selected an approach that focuses on the effectiveness of a cogeneration unit in capturing energy from fuel input and converting it into the useable forms of steam and electricity. EPA's approach does not attempt to regulate the efficiency of the processes that are powered by the steam output from cogeneration units.

Further, EPA disagrees with the commenters suggestion that the Agency's approach would not provide an incentive for cogeneration units to operate efficiently. The use of modified output, rather than actual heat input, as the basis of determining allowance allocations will promote the development of cleaner and more efficient generation of both electricity and process steam. EPA's approach rewards cogeneration combustion turbines that have HRSGs capable of recapturing greater than 80 percent of the available heat from the combustion turbine exhaust and any auxiliary burners. Furthermore, EPA's use of a 3,413 btu/KWh factor to convert electrical output from the combustion turbine to an equivalent heat input assumes that 100 percent of the combustion turbine's heat input that is not converted to electricity is sent to the HRSG as heat. This approach neglects energy losses in the combustion turbine and generator. EPA believes that any efficiency gains made by reducing these losses will be rewarded by the Agency's approach, by resulting in greater electricity and/or steam output for a given amount of heat input.

*Comments on providing sources owned by small entities with a greater share of allowances:* In the NPR, EPA took comment on allocating NO<sub>x</sub>

allowances in such a way as to provide sources owned by small entities with a greater share of allowances. As discussed at proposal, this option was based on the recommendation of one of the Small Business Advocacy Review Panel members. This option would necessitate reducing the number of NO<sub>x</sub> allowances available to other affected sources in order to ensure that the overall reduction requirements of CAIR are achieved, but could potentially provide economic relief to small entities that demonstrate economic hardship as a result of the rulemaking.

A number of commenters expressed opposition to such an allocation approach arguing that it is inappropriate for EPA to subsidize small entity sources through additional allocations that result in reduced allowance allocations and increased compliance costs for larger sources. Additionally, some of these commenters noted that such an approach could open the NO<sub>x</sub> allowance allocation system to gaming, such as through a company establishing subsidiaries in order to obtain additional allowances made available for small entities. Finally, one of these commenters suggested that such an approach would deviate from the CAIR model rules, and could restrict a State's freedom if the State plans to transition from CAIR FIP allocations to CAIR SIP allocations. One commenter expressed support for the approach described in the NPR, but noted the need for additional clarification on the definition of hardship and how such an approach would fit in with the compliance supplement pool. No potentially affected small entities, as defined in the NPR, submitted comments in support of this approach.

EPA is not finalizing a NO<sub>x</sub> allocation approach that gives a greater share of allowances to small entities that demonstrate hardship. EPA believes that the flexibilities inherent in the CAIR FIP trading program, as well as the existence of the Compliance Supplement Pool in the first year of the program, will reasonably address concerns about the economic impact of the rule on all sources. Additionally, the lack of commenter support for such an approach suggests that such an approach may not be warranted.

*Comments on use of an auction to distribute NO<sub>x</sub> allowances.* In the NPR, the Agency asked for comment on using a combination of direct allocation and auctions for distributing NO<sub>x</sub> allowances in the proposed CAIR FIP trading programs. The proposed approach was analogous to the approach in the Administration's proposed Clear Skies legislation: For the first CAIR NO<sub>x</sub>

control period (2009) the Agency would allocate 100 percent of the allowances using the fuel-factor adjusted heat input approach described above. For the second control period (2010) the Agency would allocate 99 percent of allowances to units and auction the remaining 1 percent. The percentage of allowances distributed via auction would increase over time, with the Agency distributing via auction an additional 1 percent of allowances every year for 20 years and then an additional 2.5 percent of allowances every year thereafter, until eventually 100 percent of allowances would be distributed via auction. The Agency also requested comment on appropriate auction procedures for the proposed CAIR FIP trading programs.

The majority of commenters opposed the use of an auction for allocating allowances. One commenter expressed support for an auction and the specific approach that EPA outlined at proposal. This commenter suggested that EPA modeled the auction procedure after that used in the Acid Rain Program. EPA does not necessarily agree with the specifics of the arguments submitted by commenters opposing the use of an auction. However, in light of the comments, EPA is concerned that adoption of the auction approach would be premature because the Agency lacks sufficient information about the potential impact of such auctions on sources and about the appropriate procedures for implementing such auctions. Consequently, the allocation provisions for today's final rule do not include auctions. Today's final allocation methodology, described earlier in this section, provides for the direct distribution of allowances to affected units.

#### *G. Allocation of SO<sub>2</sub> Allowances to Sources*

The Agency proposed a CAIR FIP SO<sub>2</sub> cap-and-trade program substantively identical to the CAIR SIP model SO<sub>2</sub> trading rule, which relies on title IV allowances. Title IV allowances have already been allocated in perpetuity to individual units by title IV of the CAA (70 FR 25278). Thus, the FIP proposal did not include an allocation methodology for SO<sub>2</sub> allowances, except with regard to opt-in units.

The Agency received several comments on the use of the title IV allowances in the CAIR FIP SO<sub>2</sub> program. EPA also received several petitions for reconsideration of the CAIR, and granted reconsideration concerning claims that inequities result from using title IV allowance allocations in the CAIR program. EPA received, considered, and responded to numerous

comments on this issue as part of the reconsideration process. As explained in the CAIR Notice of Final Action on Reconsideration signed the same day as this action, EPA has decided not to alter the approach taken in the final CAIR.

In today's action, EPA is adopting the CAIR model SO<sub>2</sub> trading rules as the CAIR FIP SO<sub>2</sub> trading rules, with minor revisions to allow for Federal implementation. Thus, EPA is adopting the approach taken in the final CAIR for SO<sub>2</sub> allowance allocation and State SO<sub>2</sub> budgets, which was not changed during the reconsideration process. This approach is explained below, with a brief explanation of EPA's response to the major comments received on this process. A more complete discussion of this issue and the comments received appears in the preamble to the CAIR Notice of Final Action on Reconsideration.

Several issues on SO<sub>2</sub> allowance allocations and State budgets were raised both in comments on the proposed CAIR FIP and in the context of the CAIR reconsideration process. EPA has responded to such FIP comments in the CAIR Notice of Final Action on Reconsideration, a separate action signed the same day as this notice. These comments include the following claims:

- Inequities result from EPA's allocation approach, *i.e.*, using title IV allowance allocations in the CAIR FIP trading program. A few commenters suggested that EPA instead create new CAIR SO<sub>2</sub> allowances and allocate these allowances using a methodology similar to that adopted in the CAIR SIP model trading rule for NO<sub>x</sub>.
- EPA's approach to SO<sub>2</sub> allowance allocation and State budgets creates inequities between States.
- New units and independent power production (IPP) facilities, which did not receive allocations under the Acid Rain Program, are unfairly disadvantaged by the CAIR SO<sub>2</sub> budget and allocation methodology.

A variety of approaches to SO<sub>2</sub> allowance allocation were raised and analyzed during the CAIR rulemaking process, including the approach EPA adopted in the final CAIR SIP model rule and in today's final FIP trading rule. Alternative approaches analyzed for the final CAIR included the creation of new CAIR SO<sub>2</sub> allowances and allocating on the basis of historic tonnage emissions, heat input (with alternatives based on heat input from all fossil generation or heat input from coal- and oil-fired generation only), and output (with alternatives based on all generation and all fossil-fired generation). (See CAIR Corrected

Response to Comments, section X.A.26, Docket #: EPA-HQ-OAR-2003-0053-2172).

Furthermore, as a part of the CAIR reconsideration, EPA reanalyzed State differences in allocation approaches using the same methodology as for the final CAIR, comparing the title IV approach and seven alternative approaches (those discussed above, and those raised by the commenters on the reconsideration, discussed below). EPA also performed additional analyses to evaluate the use of title IV allowance allocations in the final CAIR to see how companies and States fared in terms of the amount of allowances allocated relative to their projected SO<sub>2</sub> emissions. In these analyses, EPA compared 3 alternative SO<sub>2</sub> allowance allocation methodologies that were either referred to by the petitioner in the petition for reconsideration or by commenters on the proposed response to the petition, to the use of title IV SO<sub>2</sub> allowance allocations. EPA considered the following approaches, all using 1999–2002 data: (1) Pure heat input; (2) heat input adjusted for fuel type (*e.g.*, coal, oil and gas); and (3) heat input adjusted for fuel type and coal type (*e.g.*, bituminous, sub-bituminous, and lignite).

Each allocation methodology suggested by the petitioner and commenters during the CAIR rulemaking results in both advantages and disadvantages for different companies and States. However, as EPA explained in the CAIR Response to Comments and again in the CAIR Notice of Final Action on Reconsideration, the analyses performed by EPA demonstrate that EPA's use of title IV allowance allocations is reasonable (*see* CAIR Notice of Final Action on Reconsideration, signed in a separate action the same day as this notice).

Comments about new units and IPPs, which did not receive allocations under the acid rain program, being disadvantaged by the CAIR SO<sub>2</sub> budget and allocation methodology are also addressed in the CAIR Notice of Final Action on Reconsideration, as well as in the applicability section (VI.E) of this final FIP action. EPA considered the allocation of title IV allowances to CAIR region units that are not currently in the Acid Rain Program but that could opt into the Acid Rain Program and receive title IV allowances (*see* 42 U.S.C. 7651i and 18 CFR part 74). EPA assumes that companies owning non-Acid Rain units subject to CAIR will opt into the Acid Rain Program to receive title IV allowances to cover a portion of the units' emissions under CAIR. EPA believes this assumption is reasonable

because, as explained in the CAIR Notice of Final Action on Reconsideration, each of these units has the option of becoming an Acid Rain Program opt-in unit at little cost.

The fact that non-Acid Rain units may opt into the Acid Rain Program and receive allocations addresses the concern that the CAIR applicability provisions sweep in units that are not covered under the Acid Rain Program and thus do not receive Acid Rain Program allocations. EPA maintains that the statutory and regulatory provisions governing Acid Rain Program opt-in units allow units that are subject to CAIR, but not to the Acid Rain Program, to opt into the Acid Rain Program. *See* CAIR Notice of Final Action on Reconsideration—signed the same day as the final FIP rule—for additional discussion of authority under section 410(a) of the Clean Air Act.

Further, it should be noted, that not all units required to participate in the Acid Rain Program receive allocations under the Acid Rain Program. While, as noted above, the Acid Rain Program provides allowances for non-Acid Rain units opting into the program as long as they remain non-Acid Rain units, the Acid Rain Program provides no allocations for virtually all new Acid Rain units (*i.e.*, Acid Rain units commencing commercial operation on or after November 15, 1990) and for all existing units that were not Acid Rain units when the allowance allocations were completed in 1998 but that become Acid Rain units thereafter. By using title IV allowance allocations in the CAIR SIP SO<sub>2</sub> model trading program (adopted today as the CAIR FIP SO<sub>2</sub> trading program), EPA is taking the same approach to allocations for these units.

Finally, it is worth noting that not all title IV allowances for future years have been allocated. 250,000 allowances will continue to be auctioned for the years 2012 and thereafter, and these allowances could be used to comply with the requirements of CAIR. The availability of these allowances ensures that all sources, including new units and non-title IV sources, will have access to a pool of allowances.

In summary, EPA's use of title IV allowances in the CAIR (and CAIR FIP) SO<sub>2</sub> trading program is supported by: (1) EPA's determination that this approach is necessary to maintain the efficacy of the title IV program and prevent erosion of confidence in cap-and-trade programs in general; and (2) the results of EPA's analysis which indicate that the allocations resulting from this approach are reasonable.

A few comments related to SO<sub>2</sub> budgets and allocations submitted in response to the proposed CAIR FIP were unique to this action and, therefore, are addressed below.

One FIP commenter states that the CAIR final allocation methodology is “inequitable” because lower emitting units would buy allowances from higher emitting units that install emission controls. However, it is unclear why such a result would actually be inequitable. On the contrary, the owner of each of the units involved would be choosing to adopt the most economic compliance strategy in light of the unit’s emission control costs and the market value of allowances. The ability of the owners to make such choices reflects the flexibility provided by a cap-and-trade program.

Moreover, EPA believes that for purposes of evaluating various allocation methodologies, computing allocations on a company-by-company basis is more appropriate than comparing allocations on a unit-by-unit basis. This is because, while one unit could be allocated fewer allowances under one methodology, another unit owned by the same company could be allocated more allowances, which may offset the smaller allocation of the first unit.

This same commenter performed its own analysis of differences in SO<sub>2</sub> State budgets for select States, comparing EPA’s finalized method to “a heat input method (similar to the NO<sub>x</sub> allowance allocation method).” The commenter described the 6 of its selected States as “[l]ow-emitting states that already have made substantial investments in SO<sub>2</sub> emissions controls (e.g., South Carolina, Minnesota, Iowa, Wisconsin, Virginia, and North Carolina).” Another 5 States the commenter analyzed were described as “high-emitting states (e.g., Ohio, Georgia, West Virginia, Pennsylvania and New York).” See Docket ID: EPA–HQ–OAR–2004–0076–0204. The commenter’s characterization of States as “low-” or “high-emitting” and as having made “substantial” SO<sub>2</sub> control investments is entirely unsupported. The commenter provided no criteria or factual basis for making such characterization, and the analysis submitted by the commenter appears to disregard the cost of installing controls in order to generate any excess allowances in States that are characterized as “high-emitting.” Further, only 3 utilities from the State’s listed as “low-emitting” by the commenter, submitted adverse comments on EPA’s use of title IV.

Nevertheless, as mentioned above, EPA performed a comprehensive State-

by-State SO<sub>2</sub> budget analysis of all CAIR States and a variety of alternative methodologies to evaluate the claim of inequity as a part of the CAIR Notice of Final Action on Reconsideration. In that analysis, EPA demonstrated that the CAIR (and CAIR FIP) SO<sub>2</sub> State budget and allocation methodology provides a reasonable result. EPA’s use of title IV allowances in the CAIR (and CAIR FIP) SO<sub>2</sub> trading program is supported by: EPA’s determination that this approach is necessary to maintain the emissions reductions from, and effectiveness of, the title IV program; prevent erosion of confidence in cap-and-trade programs in general; and EPA’s analysis showing that the allocations resulting from this approach is reasonable.

#### *H. Allowance Banking*

Allowance banking is the retention of unused emissions allowances from one calendar year for use in a later calendar year (or from one ozone season for use in a later ozone season). Banking allows sources to make reductions beyond required levels and “bank” the unused allowances for use later. Generally speaking, banking has several advantages. Allowance banking can encourage earlier or greater reductions than are required from sources, stimulate the market and encourage efficiency, and provide flexibility in achieving emissions reduction goals. The CAIR FIP NPR proposed a trading program with unrestricted banking.

#### *Comments on the Banking of Allowances*

Several commenters supported EPA’s proposal to allow unrestricted banking of allowances. In general, they agreed with EPA that this approach: provides incentives for sources to make emission reductions beyond required levels, in some cases earlier emission reductions; is consistent with the CAIR SIP model trading rules; and provides flexibility in compliance strategies. Supporters of unrestricted banking also agreed with the EPA assessment that the use of banking restrictions, such as the “flow control” in the Ozone Transport Commission (OTC) cap-and-trade program, is complicated to understand and implement and caused market complexity.

Other commenters supported the use of banking restrictions claiming that allowing unrestricted banking delays emission reductions. These commenters did not provide additional details regarding an alternative to banking or, if banking were to be restricted, what restrictions should be used.

#### *Final CAIR FIP Cap-and-Trade Program*

Today’s final CAIR FIP cap-and-trade programs allow unrestricted banking. EPA disagrees with commenters who claimed that unrestricted banking simply delays emission reductions. The ability of sources to sell allowances, without restriction, provides incentives for sources to over-control their emissions prior to emission reduction deadlines. As discussed in the CAIR NFR (section VIII.E), this creates a “glide path” towards the final emission cap levels. Emission levels along the glide path, which may not equate to the emissions caps for any given year, are the levels of emission reductions that are shown to address the pollution transport issue.

EPA also agrees with supporting commenters that banking restrictions, such as “flow control,” introduce uncertainty into source planning by introducing the potential for devaluing allowances on short notice. EPA also agrees that allowing unrestricted banking in the CAIR FIP cap-and-trade programs provides consistency with the CAIR cap-and-trade programs.

#### *I. Incentives for Early Reductions*

When sources reduce their SO<sub>2</sub> and NO<sub>x</sub> emissions prior to the first phase of a multi-phase cap-and-trade program, it creates a slope of emissions that gradually declines over time, an emission reduction “glide path” that provides early environmental benefit and lowers the costs of compliance. Each of the cap-and-trade programs proposed in the CAIR FIP NPR incorporated the incentives for early reductions provided in the respective CAIR model trading programs: *i.e.*, the banking of title IV allowances allocated of vintage years pre-2010 into the CAIR SO<sub>2</sub> trading program, the compliance supplement pool (CSP) in the CAIR NO<sub>x</sub> annual program, and the banking of NO<sub>x</sub> SIP Call allowances of pre-2009 vintage into the CAIR NO<sub>x</sub> ozone season program. While EPA believes that modeling has shown that the CAIR and CAIR FIP timelines are as early as feasible, early reductions incentives provide a mechanism for those facilities that can reduce their emissions prior to the implementation deadline to receive some credit. By shifting some emission reductions earlier, some environmental benefit is realized earlier. In addition, the CAIR FIP trading programs’ early reduction mechanisms provide a way for companies that may have some difficulty meeting the implementation timeline to start early and achieve the mandated reductions on a more gradual pace. These mechanisms, along with

public comment on each, are discussed below.

#### 1. SO<sub>2</sub> Annual Program

The proposed CAIR FIP SO<sub>2</sub> annual cap-and-trade program would provide incentives for sources to reduce their SO<sub>2</sub> emissions prior to the 2010 implementation date by allowing affected sources to use title IV SO<sub>2</sub> allowances of vintage 2009 and earlier for compliance with the CAIR FIP program at a 1-to-1 ratio. The CAIR FIP trading program adopts the early reductions incentive mechanism in the CAIR model trading rules. The modeling for the CAIR assumed the existence of such incentive mechanisms and showed that the SO<sub>2</sub> cap-and-trade program, with this early incentive mechanism, will achieve the level of SO<sub>2</sub> reductions needed to meet the CAIR goals.

*Comments on Early Emission Reduction Incentives in the CAIR FIP SO<sub>2</sub> Cap-and-trade Program.* In general, commenters supported EPA's approach of allowing sources to bank title IV SO<sub>2</sub> allowances into the CAIR FIP SO<sub>2</sub> trading program at a 1-to-1 ratio. One commenter opposed this mechanism because "EPA does not explain how carrying these allowances over to the CAIR bank creates an incentive for reductions if the allowances already exist." The commenter continues by highlighting that EPA modeling projects emissions to be approximately 37 percent above the annual CAIR emission caps for the first 5 years after the compliance deadline.

*Final CAIR FIP SO<sub>2</sub> Annual Cap-and-trade Program.* Today's action allows sources to bank title IV SO<sub>2</sub> allowances into the Federal CAIR SO<sub>2</sub> annual cap-and-trade program at a 1-to-1 ratio. EPA disagrees with the comment that allowing banked allowances does not promote early reductions because allowances were banked before CAIR was proposed or finalized. Allowing sources to bank title IV allowances in the CAIR FIP SO<sub>2</sub> annual program provides incentive for sources to: (1) Preserve reductions already made (whether before or after CAIR was proposed) rather than negating these reductions by increasing their emissions before 2010 and "spending down" their bank; and (2) to reduce further emissions before 2010 and increase their bank. This incentive is created by allowing sources to benefit financially from allowances banked before 2010 that retain their value in the CAIR FIP and CAIR SO<sub>2</sub> trading programs. All pre-2010 vintage allowances will retain their value in the CAIR and CAIR FIP trading programs because they can be used (on a one-allowance-per-ton basis)

to meet the requirement to hold allowance to cover emissions under the CAIR FIP (and CAIR) trading programs. In summary, a source has an incentive to continue banking allowances before 2010, which results in the preservation of existing emission reductions and the creation of further reductions.

The commenter noted that allowing banking into the CAIR FIP SO<sub>2</sub> annual program results in the emissions being greater than the cap levels. However, the gradually declining emissions "glide slope" is one of the keys to cap-and-trade programs achieving cost-effective reductions. As discussed above, EPA's modeling for CAIR showed that, with the pre-2010 title IV SO<sub>2</sub> allowance banking and subsequent use of the bank, the environmental goals of reducing the interstate transport of pollution will be achieved.

#### 2. NO<sub>x</sub> Annual Program

The FIP NPR proposed a CAIR FIP NO<sub>x</sub> annual cap-and-trade program that included a Compliance Supplement Pool (CSP) to provide an incentive for early, annual NO<sub>x</sub> annual emission reductions. The CSP would provide, for each affected State, a pool of CAIR NO<sub>x</sub> annual allowances from which EPA could distribute allowances for early, surplus NO<sub>x</sub> emissions reductions occurring in the years 2007 and 2008. The CSP would provide a total of 200,000 annual NO<sub>x</sub> allowances of vintage 2009 for the CAIR region (including Delaware and New Jersey's share of the pool), apportioned to each State, which would be in addition to each State's annual NO<sub>x</sub> budgets. Table V-3 in this preamble sets forth the CSP amounts by State. The CAIR FIP trading program adopts the CSP established in the CAIR model trading program. However, where the CAIR model trading program provides States with flexibility to determine what constitutes an early reduction qualifying for an allocation of allowances from the CSP, the Administrator allocates the CSP in the CAIR FIP trading program. As a result, the CAIR FIP, provides a specific methodology for determining early reductions than is in the CAIR model rules. This methodology is explained below.

As proposed, Federal CSP allowances could be distributed to sources based upon: (1) Implementing NO<sub>x</sub> control measures that result in early emission reductions in 2007 or 2008, *i.e.*, reductions beyond what is required by any applicable State or Federal emissions limitation; or, (2) a demonstration of need for an extension of the 2009 deadline for implementing emission controls. See section VII.A. in

the CAIR NFR preamble (70 FR 25256–25263). The Agency proposed that, in order for early emission reductions to qualify for allowances from the CAIR FIP CSP, sources would have to demonstrate that—for each year for which they apply for CAIR FIP CSP allowances—they had an annual NO<sub>x</sub> emission rate below 0.25 lb/mmBtu. In addition, sources who also participate in a title IV NO<sub>x</sub> averaging plan would have to demonstrate that the plan-wide weighted-average annual NO<sub>x</sub> emission rate for each such year was equal to or lower than the plan-wide rate for the preceding year. Sources meeting this criterion could request early reduction credit equal to the difference between 0.25 lb/mmBtu and the unit's actual emission rate multiplied by the unit's actual heat input for the applicable control period.

*Comments on Federal CSP.* Several commenters supported the use of a CAIR FIP CSP to encourage early emission reductions and provide sources access to some additional allowances for demonstrated reliability needs. Some commenters supported including a CAIR FIP CSP but were concerned about the use of additional criteria (*i.e.*, a 0.25 lb/mmBtu threshold and the limitation on emissions under a title IV NO<sub>x</sub> averaging plan). Other commenters believed that providing additional allowances would delay emission reductions and that EPA's analysis already demonstrated that the mandated emission reduction levels and timelines are feasible.

EPA disagrees with commenters that believe the CAIR FIP CSP should not include the criterion that units can only request early reduction credit equal to the difference between 0.25 lb/mmBtu and the unit's actual emission rate multiplied by the unit's actual heat input for the applicable control period. EPA believes that the 0.25 lb/mmBtu threshold (coupled with the limitation on emissions under a title IV NO<sub>x</sub> averaging plan) provides a reasonable proxy for the more general standard that emission reductions exceed what is required under State or Federal law.<sup>32</sup> Applying these criteria will provide reasonable assurance that only early reductions (*i.e.*, reductions exceeding existing requirements) will be awarded CAIR FIP CSP allowances. Further, because these criteria are clearer and more precise than the general standard that reductions exceed existing

<sup>32</sup> The 0.25 lbs/mmBtu criterion is based upon EPA analysis described in the CAIR FIP CSP Technical Support Document and is similar to the criterion used for the CSP established under the NO<sub>x</sub> SIP Call section 126 action. (65 FR 2674, January 18, 2000).

requirements, the criteria will give owners and operators greater certainty when making reasonable projections about how many allowances they may receive for their early reductions and will, thereby, encourage early emission reductions.

Additionally, EPA disagrees with commenters that believe the CAIR FIP CSP should not include the distribution criterion that units in a title IV NO<sub>x</sub> averaging plan would have to demonstrate that the current plan-wide average NO<sub>x</sub> emission rate be less than the plan-wide average for the previous year. The averaging plan criterion acknowledges the unique circumstances for units that are in title IV NO<sub>x</sub> averaging plans, where emission reductions by one unit in the plan may be offset by emission increases by another unit in the plan, thereby, making it difficult to determine whether early reductions are taking place. As discussed above, EPA believes that this criterion, coupled with the 0.25 lb/mmBtu criterion, provides a reasonable proxy for the general standard that reductions exceed existing requirements and that the criteria provide greater certainty about the rewarding of CAIR FIP CSP allowances. EPA believes it is appropriate to base the averaging plan criterion on a single, prior year's plan-wide average emission rate because the averaging of emissions across a plan tends to mitigate year-to-year fluctuations.

EPA disagrees with commenters that believe a CAIR FIP CSP will significantly delay emission reductions. For the CAIR NFR, EPA conducted IPM modeling of the CAIR trading programs to evaluate the effect of the 200,000 CAIR annual CSP NO<sub>x</sub> allowances. The modeling shows that these CSP allowances do not have a significant impact on regionwide NO<sub>x</sub> emissions.

*CAIR FIP CSP Finalized in Today's Action.* Today's rule finalizes the CAIR FIP CSP mechanism proposed in the FIP NPR. EPA believes that including a CAIR FIP CSP will encourage early emission reductions and alleviate concerns of some sources that they have unique issues concerning compliance with the 2009 implementation deadline of the CAIR FIP trading program. (See 70 FR 25286 for additional discussion of the CAIR CSP.) EPA also believes that the CSP will not significantly impact the achievement of emission reduction goals.

The CAIR FIP CSP includes specific criteria for distributing allowances based upon early emission reductions that do not appear in the CAIR SIP trading programs. (Note that, as discussed in section IV.E of today's

action, States choosing the abbreviated SIP revision option may choose to use the CAIR FIP CSP or the CAIR CSP mechanism or may choose another mechanism consistent with § 51.123(e)(4).) EPA believes that the criteria will reasonably ensure that the award of CSP allowances will be aimed at early reductions and give owners and operators greater certainty to make reasonable projections about how many allowances they may receive for their early reductions.

### 3. NO<sub>x</sub> Ozone Season Program

The final CAIR FIP NO<sub>x</sub> ozone season cap-and-trade program allows the banking of NO<sub>x</sub> SIP Call allowances of vintage years 2008 and earlier and their use in the CAIR FIP NO<sub>x</sub> ozone season program to meet the requirement to hold allowances covering their emissions. This provides incentive for sources in the NO<sub>x</sub> SIP Call to reduce their ozone season NO<sub>x</sub> emissions before 2009 and bank additional allowances into the CAIR FIP NO<sub>x</sub> ozone season program. This early-reduction incentive mechanism is in the CAIR NO<sub>x</sub> ozone season model rule and is adopted as part of the CAIR FIP NO<sub>x</sub> ozone season cap-and-trade programs. EPA did not receive any comments specifically addressing the early-reduction incentive mechanism in the CAIR FIP NO<sub>x</sub> ozone season program. However, several commenters generally supported mechanisms to provide incentives for early emission reductions. The Agency is finalizing this mechanism.

### *J. Monitoring and Reporting Requirements*

Under the CAIR SIP model cap-and-trade rules, sources are required to monitor and report NO<sub>x</sub> and SO<sub>2</sub> mass emissions in accordance with 40 CFR part 75. (See Section VIII.H. of the CAIR NFR preamble, 70 FR 25288.) Many CAIR sources are measuring and reporting SO<sub>2</sub> mass emissions and NO<sub>x</sub> emission rate year round under the Acid Rain Program. Many additional sources are also reporting NO<sub>x</sub> mass emissions at least during the ozone season and often year round under the NO<sub>x</sub> SIP Call. The CAIR SIP model rules require continuous monitoring of NO<sub>x</sub> mass emissions by all existing, affected units by January 1, 2008 using part 75 certified monitoring systems for the NO<sub>x</sub> annual program and May 1, 2008 for the NO<sub>x</sub> ozone season program. SO<sub>2</sub> emissions must be monitored by those same units beginning January 1, 2009.

Today's rulemaking requires part 75 monitoring, reporting, and recordkeeping for all units subject to the CAIR FIP cap-and-trade programs. This

is consistent with the CAIR model cap-and-trade programs. For additional discussion on monitoring and reporting requirements, see Section VIII.H. in the CAIR NFR preamble (70 FR 25288).

### *K. Interactions With Other CAA Programs*

In the CAIR NFR preamble, section IX discusses interactions between the NO<sub>x</sub> SIP Call and CAIR. Section IX also discusses interactions between the title IV Acid Rain Program and CAIR. Today's final rule covers the same States as the CAIR and adopts as FIP trading programs the CAIR SIP model trading rules, thus the interactions would be as described in CAIR (70 FR 25289–25299).

## **VII. What Are the Revisions of the CAIR SIP Rule, Including the CAIR Model Cap-and-Trade Rules?**

The EPA is adopting several revisions of the CAIR SIP rule. One such revision is part of EPA's final action on reconsideration concerning the applicability provisions as they relate to solid waste incineration units. In particular, for the reasons stated in the preamble of the August 24, 2005 proposed rule, EPA is finalizing the EGU definition in §§ 51.123(cc) and 51.124(q). The EGU definition, as adopted, excludes certain solid waste incineration units from being EGUs; limits EGUs to units that, as of November 15, 1990 or any time later, serve a generator with a greater than 25 MWe nameplate capacity producing electricity for sale; and clarifies language concerning cogeneration units. The final EGU definition is the same as the definition proposed on reconsideration except for a few minor changes, e.g., to clarify the circumstances under which a unit that is not an EGU, but that begins to combust fossil fuel or to serve a generator with a 25 MWe nameplate, becomes an EGU. (For the reasons in the preamble of the August 24, 2005 proposed rule, the language in the final EGU definition is also reflected in final applicability provisions of the CAIR model trading rules and the CAIR FIP trading programs.) EPA is also finalizing, as discussed in detail above, provisions allowing States to submit abbreviated SIP revisions.

EPA is also adopting a number of revisions of the CAIR SIP model cap-and-trade rules. The revisions are generally necessary to integrate each of the CAIR SIP model cap-and-trade programs with its corresponding CAIR FIP cap-and-trade program, and some of the final revisions reflect needed technical and clarifying changes. The revisions are consistent with the



analogous provisions of the final CAIR FIP trading programs. One such revision is part of EPA's final action on reconsideration concerning the applicability provisions as they relate to solid waste incineration units.

In particular, several definitions of terms are revised, and a few new definitions are added. For example, the definitions of "CAIR designated representative" and "alternate CAIR designated representative" are modified to require that the respective individuals designated for these positions be the same individuals as designated, for a given source, as the designated representative and alternate designated representative under any applicable trading program under the Clean Air Mercury Rule (CAMR). (CAMR was promulgated in May 2005 to achieve reduction of national mercury (Hg) emissions. *See* 70 FR 28606, May 18, 2005.) This will greatly simplify the administration of the allowance tracking systems for the trading programs, including the Hg trading programs, for which EPA intends to propose analogous changes. (In order to implement this change, a new definition for "Hg Budget Trading Program" is added to the CAIR SIP model trading rules.)

As a further example, a new definition is added ("solid waste incineration unit"), and certain definitions are modified ("commence commercial operation" and "commence operation"), to reflect final changes in the applicability provisions for the CAIR model trading rule and to clarify and streamline the language in the definitions. In particular, the modified definitions are consistent with the above-noted revisions of the applicability provisions that: exempt certain solid waste incineration units from the CAIR trading programs; limit applicability to units that, as of November 15, 1990 or any time later, serve a generator with a greater than 25 MWe nameplate capacity producing electricity for sale; and clarify the language concerning cogeneration units. In addition, the "commence commercial operation" and "commence operation" definitions are simplified by removing unnecessary language, such as the language referring to CAIR opt-in units, which is unnecessary because these terms are not used in the CAIR opt-in rule provisions. Also, the simplified definition of "commence operation" means that all units will use the same "commence operation" definition in determining, for purposes of allocations under § 96.142 and 96.342, their baseline periods for calculating adjusted or converted heat input. (The provisions

for opt-in units that subsequently become subject to the allocation provisions of § 96.142 and 96.342 and lose their opt-in status are also revised to reflect this approach.)

Further, a definition of "replacement," a term used in the "commence commercial operation" and "commence operation" definitions, is added in order to clarify the application of the latter two terms to cases when a unit is replaced by another unit, rather than simply being modified. The revised applicability provisions and related definitions in the CAIR SIP model trading rules are consistent with the applicability provisions and related definitions in the final CAIR FIP trading rules and with the above-discussed EGU definition in §§ 51.123(cc) and 51.124(q).

In addition, the definitions of "CAIR NO<sub>x</sub> allowance," "CAIR NO<sub>x</sub> Annual Trading Program," "CAIR SO<sub>2</sub> allowance," "CAIR SO<sub>2</sub> Annual Trading Program," "CAIR NO<sub>x</sub> Ozone Season allowance," and "CAIR NO<sub>x</sub> Ozone Season Trading Program" are modified to provide for integrated operation of each CAIR SIP trading program administered by EPA for any State with its corresponding CAIR FIP trading program for any State. Under these revised definitions, CAIR NO<sub>x</sub>, SO<sub>2</sub>, or NO<sub>x</sub> Ozone Season allowances issued under either type of program for any State would be a "CAIR NO<sub>x</sub> allowance," "CAIR SO<sub>2</sub> allowance," or "CAIR NO<sub>x</sub> Ozone Season allowance," respectively, usable by owners and operators for meeting the allowance-holding requirement under the corresponding CAIR SIP model trading program or CAIR FIP trading program for any State.

EPA is also simplifying and clarifying other definitions. For example, the term "allocate" is simplified to cover allocation of allowances for either the CAIR SIP or FIP trading programs. The definition of "maximum design heat input" is simplified, and the definition of "nameplate capacity" is clarified.

Further, the retired unit exemption provisions are revised. The revisions clarify that the provisions concerning CAIR designated representatives and the appeal procedures generally applicable to final actions of the Administrator are applicable to retired units and to final actions of the Administrator with regard to retired units.

In addition, the provisions listing the content of a certificate of representation are revised to clarify that the identification of each unit covered by the certificate of representation includes identification and nameplate capacity of each generator served by the unit. EPA

believes that the current rule language requiring "identification" of each unit subject to the trading program is already broad enough to encompass such information concerning each generator served by the unit, particularly since only a unit serving a generator with a nameplate capacity greater than 25 MWe can be subject to the CAIR trading programs. However, EPA is revising the language to make it clear that generator information is required in the certificate of representation.

EPA is also making technical revisions to the provisions concerning the reflection in certificates of representation of the owners and operators of the source and units involved. The changes make it clear that all owners and operators must be listed and that those that should be, but are not, listed are still bound by the certificate of representation and the CAIR designated representative.

Further, new provisions concerning designated representatives and authorized account representatives are added to clarify that such individuals may use agents in order to make electronic submissions. The existing CAIR SIP model trading rules provide for certain submissions (*i.e.*, certificates of representation, applications for general account, allowance transfers, and quarterly emissions reports) required to be "in a format prescribed" or "in a format specified" by the Administrator. (The terms "prescribed" and "specified" have the identical meaning in these contexts.) These submissions may be made, and in the case of quarterly emissions reports must be made, electronically. Although the formats for the CAIR trading programs have not yet been developed, other EPA-administered trading programs (*i.e.*, the Acid Rain Program and the NO<sub>x</sub> Budget Trading Program) have analogous language concerning submission formats and have existing, prescribed formats for submissions. The electronic formats prescribed by the Administrator for the Acid Rain Program and the NO<sub>x</sub> Budget Trading Program allow the designated representative or authorized account representative, as appropriate, to designate other individuals ("agents") who may make the electronic submissions for the designated representative or authorized account representative, who is fully bound by the agent's actions. EPA maintains that the references in the Acid Rain Program and NO<sub>x</sub> Budget Trading Program regulations to "prescribed" (or "specified") formats, coupled with the existing electronic formats, provide the legal authority necessary for designated representatives and authorized account

representatives to use agents to make electronic submissions in the applicable trading programs. EPA plans to adopt electronic formats for the CAIR trading programs that, similarly, allow for the use of agents. EPA believes that the existing references in the CAIR SIP model trading rules to “format[s] prescribed ” or “specified” by the Administrator, when coupled with the appropriate electronic formats, will similarly provide the legal authority necessary for the use of agents. However, in order to remove any uncertainty about such legal authority, EPA is adding provisions to the CAIR SIP model trading rules (and to the CAIR FIP trading rules) that explicitly authorize the use of agents for electronic submissions.

In addition, in the permitting provisions, EPA is revising the deadline for submission of CAIR permit applications to run from the later of January 1, 2009 (for the NO<sub>x</sub> programs) or 2010 (for the SO<sub>2</sub> program) or the date on which the unit commences commercial operation, rather than the date on which the unit simply commences operation. A unit's date of commencement of commercial operation is not likely to range from more than a few days to a few months later than the unit's date of commencement of operation since owners and operators of EGUs generally prefer to minimize using fuel without producing electricity. Moreover, running the permit application deadline from the commencement of commercial operation avoids the need for complex provisions in the definition of “commence operation” to address, solely for permitting purposes, units that are not subject to the CAIR trading programs when they first combust fuel and that subsequently become CAIR units. (The simplified definition of “commence operation” reflects this revision.)

Further, EPA is adopting certain technical corrections in the NO<sub>x</sub> allowance allocation provisions. In particular, the current provisions concerning timing of submission of unit allocations by the permitting authority to the Administrator provide that if the unit allocations are not submitted on time, the Administrator will assume that the allocations are the same as in the prior year. If the year for which allocations are submitted late is 2015 (the beginning of phase II of the CAIR trading programs, the Administrator will assume that the allocations are 83% of the 2014 allocations. EPA is removing these provisions both for existing and new units because they seem unlikely to be used, are unduly complicated, and

may result in 2015 in total allocations that do not equal the respective State trading budget. Moreover, there are no comparable provisions in the CAIR FIP trading rules.

EPA is also revising the current provisions for new unit allocations that provide that a new unit is eligible for allocations from the new unit set-aside until that unit has operated long enough to develop a baseline heat input using the 3 highest figures for converted control period heat input out of such figures for the first 5 years of operation. At that point, the unit is supposed to be allocated allowances from the pool of allowances allocated to all units that have a baseline heat input. However, allowances for units with baselines are allocated a number of years in advance of the first year for which such allowances may be used to meet the allowance-holding requirement. Consequently, it is possible for a new unit to have a baseline as of a given year but find that no more allowances are available for that year for units with baselines because the allowances for that year were allocated before the time when the new unit's baseline was developed. A new unit could find that, for some years, it was both ineligible for the new unit set-aside and unable to obtain an allocation from the pool for units with baselines. EPA intended that new units move seamlessly from new-unit-set-aside eligibility to units-with-baselines allocations and not to fall in between the two types of allocation procedures. EPA is revising the allocation provisions to clarify that a new unit continues to be eligible for the new unit set-aside so long as the unit is not allocated allowances from the pool for units with baselines allocations either because the new unit does not yet have a baseline or because all the allowances for units with baselines have already been allocated for the year involved.

EPA also is adopting technical changes that make it clear that a separate request for new-unit-set-aside allowances must be submitted for each control period for which they are sought and must be submitted by May 1 (for the NO<sub>x</sub> annual program) or February 1 (for the NO<sub>x</sub> ozone season program) of that control period. This approach will reasonably put the burden on owners and operators to inform the State permitting authority each year. This will ensure that the State permitting authority can keep track, for each control period in the future, of which units are seeking new-unit-set-aside allowances for that control period. These submission deadlines will give the State permitting authorities more

time to process (which may include, when appropriate, opportunity for public comment) the requests in time to submit the allocations to the Administrator for recordation by December 1 (for the NO<sub>x</sub> annual program) or September 1 (for the NO<sub>x</sub> ozone season program). Similarly, EPA is revising the deadline for submission of requests for allowances from the compliance supplement pool to be May 1, 2009 (rather than July 1, 2009). Just as emissions data for 2008 will be available in time for new-unit-set-aside requests due on May 1, emissions data for 2008 (and 2007) will be available in time for compliance-supplement-pool requests due on May 1. The July 1, 2009 deadline did not provide sufficient time for State permitting authorities to process the requests.

In addition, EPA is adopting technical changes to the provisions for recordation of allowance allocations, for the reasons discussed below and elsewhere in this preamble. For example, the current provisions require the Administrator to record the initial allocations for 2010–2014 by December 1, 2006. Because State plans are not due until September 11, 2006, EPA cannot review and approve all State plans in time to record allowance allocations in those plans by December 1, 2006, which date is changed to September 30, 2007. Further, the current provisions also require the recordation of allocations for subsequent years to occur only after completion of the end-of-year compliance determination process for a previous year. Because of the need to finalize emissions data for a year before the compliance determination process for that year can be completed, the current provisions may delay recordation for a number of months. However, as a matter of logic, there is no necessary connection between one year's compliance determination and the future year's allocation recordation. Consequently, EPA is removing the connection made in the current provisions and is setting an independent deadline (December 1) for allocation recordation, which will result in recordation several months earlier than under the current provisions.

Further, EPA is adopting technical changes to the provisions referring to when an allowance transfer by the owner of an allowance to another allowance tracking system account is “correctly submitted.” The changes clarify that a “correctly submitted” allowance transfer is one that references allowances that both: Were in the owner's allowance tracking system account when the allowance transfer form was submitted to the

Administrator; and continue to be in such account when the allowance transfer form is processed by the Administrator.

In addition, EPA is revising the provisions for deducting allowances to determine compliance with the allowance-holding requirement under the trading programs. The revisions do not change the requirements that an allowance usable for compliance: be allocated for the year, or a year before the year, for which compliance is being determined; and be in or covered by a proper request for transfer into the source's compliance account by the allowance transfer deadline. However, the statement indicating that the allowance must also not be necessary to account for excess emissions for a prior year is removed because it is confusing and inconsistent with the compliance procedures that EPA has been using in its ongoing cap-and-trade programs, *i.e.*, the Acid Rain Program and the NO<sub>x</sub> Budget Trading Program.

Further, as explained in the preamble of the August 24, 2005 proposed rule, EPA is adopting revisions clarifying the application of excess emissions penalties for a source that is subject to, and has excess emissions under, both the Acid Rain Program and the CAIR SO<sub>2</sub> model trading rule. Under these revisions, a given ton of SO<sub>2</sub> excess emissions at a source, the owners and operators of the source will be liable, if that ton is an excess emission under both the Acid Rain Program and the CAIR trading program, for the offset (the deduction of one allowance) and the dollar penalty (\$2,000 inflation adjusted) under the Acid Rain Program and liable, if that ton is only an excess emission under the CAIR trading program, for the 3-for-1 allowance deduction under the CAIR trading program.

In addition, EPA is revising certain provisions concerning the use of substitute data when the owner or operator of a unit adds a new stack or flue and fails to meet the deadline for monitoring certification. EPA proposed, but is not finalizing, procedures that would allow for substitute data other than data reflecting maximum potential emissions. Because EPA believes that the proposed provisions would in fact still result in the use of data reflecting maximum potential emissions, EPA is not adopting the proposed provisions.

Further, EPA is removing a provision that separately requires units to monitor heat input. The provision is unnecessary because heat input monitoring is already explicitly required in the monitoring provisions in § 96.170, 96.270, and 96.370.

In addition, EPA is revising the requirements for CAIR opt-in permits for owners and operators planning to repower an opt-in unit and seeking special allowance allocations for such unit. The revisions require that the owners and operators state, in the permit application, that they intend to repower the opt-in unit before January 1, 2015. EPA believes that this is a reasonable requirement to prevent frivolous requests for the special allocations for opt-in units to be repowered. The permit application, like any submission for owners and operators, must of course include a certification as to the truth, accuracy, and completeness of the submission.

A few changes are adopted for some other provisions (concerning, *e.g.*, the submission deadlines for quarterly emissions reports for CAIR opt-in units and units applying to be CAIR opt-in units and inclusion of the CAIR opt-in permit in the CAIR permit and the title V permit for the source that includes the CAIR opt-in unit) of the CAIR SIP model trading rules. These other changes are similarly technical or clarifying in nature. All of these changes are consistent with the analogous provisions in the final CAIR FIP trading rules.

#### **VIII. What Are the Revisions of Acid Rain Program Regulations?**

A few changes are adopted for the Acid Rain Program regulations. As explained in the preamble of the August 24, 2005 preamble, EPA is adopting revisions aimed at facilitating interaction among the CAIR FIP trading programs, any EPA-administered CAIR SIP trading programs, and the Acid Rain SO<sub>2</sub> trading program and revisions related to the change, finalized in the CAIR rulemaking, from unit-level to source-level compliance with the Acid Rain SO<sub>2</sub> trading program.

In addition, EPA is revising the provisions listing the content of a certificate of representation to clarify that the identification of each unit covered by the certificate of representation includes identification and nameplate capacity of each generator served by the unit. EPA believes that the current rule language requiring "identification" of each unit subject to the trading program is already broad enough to encompass such information concerning each generator served by the unit, particularly since only a unit serving a generator with a nameplate capacity greater than 25 MWe can be subject to the Acid Rain Program. However, EPA is adopting revised language to make it clear that

generator information is required in the certificate of representation.

EPA is also making technical revisions to the provisions concerning the reflection in certificates of representation of the owners and operators of the source and units involved. The changes make these provisions consistent with those in the CAIR trading programs. The changes make it clear that all owners and operators must be listed and that those that should be, but are not, listed are still bound by the certificate of representation and the CAIR designated representative.

Further, EPA is adding a new § 72.26 and a new § 73.33(g) that are analogous to provisions adopted in the CAIR SIP model trading rules and the CAIR FIP trading rules and concern the use of agents by a designated representative and authorized account representative. As discussed above in Section VII of this preamble, EPA maintains that the existing Acid Rain Program regulations already authorize a designated representative or authorized account representative to use agents to make certain electronic submissions. However, in order to remove any uncertainty about such legal authority, EPA is adding provisions to the Acid Rain Program regulations that explicitly authorize such use of agents.

In addition, EPA is revising the appeal provisions of part 78 to apply to the appeals procedures to final actions of the Administrator under the CAIR FIP trading rule, just as these provisions already apply to final Administrator actions under the CAIR SIP model trading rules. Part 78 is revised to refer specifically, where appropriate, to the CAIR FIP trading rules in a similar way to how part 78 currently refers specifically, where appropriate, to the CAIR SIP model trading rules.

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

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

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

1. Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the

environment, public health or safety, or State, local, or Tribal governments or communities;

2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

3. Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Today's action both provides a response to the Section 126 Petition filed by North Carolina and promulgates FIPs to implement the requirements of the recently published CAIR (May 2005) in all affected States. It also makes minor changes to the CAIR and the Acid Rain Program. The FIPs require the same set of air pollution emissions reductions required by the CAIR. For this reason, EPA is relying on the economic analysis conducted for CAIR entitled "Regulatory Impact Analysis of the Final Clean Air Interstate Rule" (March 2005) to serve as the analysis for these rulemakings.

This economic analysis shows that substantial net economic benefits to society are likely to be achieved due to reduction in emissions resulting from the CAIR program. The results show that the CAIR program would be highly beneficial to society, with annual net benefits (benefits less costs) of approximately \$71.4 or \$60.4 billion in 2010 and \$98.5 or \$83.2 billion in 2015. These alternative net benefits estimates occur due to differing assumptions concerning the social discount rate used to estimate the annual value of the benefits of the rule with the lower estimates relating to a discount rate of 7 percent and the higher estimates a discount rate of 3 percent. All amounts are reflected in 1999 dollars. The costs and benefits presented in the CAIR economic analysis are an accurate representation of the benefits and costs anticipated for the FIPs. For more information, see the NFR for the CAIR published in the **Federal Register** (70 FR 25162; May 12, 2005) and the "Regulatory Impact Analysis for the Final Clean Air Interstate Rule" (March 2005).

In view of its important policy implications and potential effect on the economy of over \$100 million, this action has been judged to be an economically "significant regulatory action" within the meaning of the Executive Order. As a result, today's action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

#### B. Paperwork Reduction Act

The EPA believes that the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) requirements of this rule are satisfied through the Information Collection Request (ICR) (EPA ICR number 2152.02; OMB control number 2060-0570) submitted to the OMB for review and approval on May 12, 2005 as part of the CAIR (70 FR 25162-25405) and approved by the OMB in September 2005. The ICR describes the nature of the information collection and its estimated burden and cost associated with that final rule. In cases where information is already collected by a related program, the ICR takes into account only the additional burden. [This situation arises in States that are also subject to requirements of the Consolidated Emissions Reporting Rule (EPA ICR number 0916.10; OMB control number 2060-0088) or for sources that are subject to the Acid Rain Program (EPA ICR number 1633.13; OMB control number 2060-0258) or NO<sub>x</sub> SIP Call (EPA ICR number 1857.03; OMB number 2060-0445) requirements.]

The burden of today's rule is essentially the same as the burden estimated for the CAIR. There is a modest transfer of burden from the States to EPA if the Federal plan is implemented rather than the CAIR State plan. The overall total burden is essentially unchanged. Thus, the ICR prepared for CAIR satisfies the requirements of the Paperwork Reduction Act for this rule.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of

collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

#### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For the purposes of this rulemaking, EPA defined small entities according to the following three criteria:

(1) A small business according to the Small Business Administration size standards by the North American Industry Classification System (NAICS) category of the owning entity. The range of small business size standards for electric utilities is 4 billion kilowatt-hours of production or less;

(2) A small government jurisdiction that is a government of a city, county, town, district, or special district with a population of less than 50,000; and

(3) A small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

Table IX-1 lists entities potentially affected by this rule with applicable NAICS code.

TABLE IX-1.—POTENTIALLY REGULATED CATEGORIES AND ENTITIES <sup>a</sup>

Category	NAICS code <sup>b</sup>	Examples of potentially regulated entities
Industry .....	221112	Fossil fuel-fired electric utility steam generating units.
Federal Government .....	• 221112	Fossil fuel-fired electric utility steam generating units owned by the Federal government.

TABLE IX-1.—POTENTIALLY REGULATED CATEGORIES AND ENTITIES <sup>a</sup>—Continued

Category	NAICS code <sup>b</sup>	Examples of potentially regulated entities
State/Local/ .....	• 221112	Fossil fuel-fired electric utility steam generating units owned by municipalities.
Tribal Government .....	921150	Fossil fuel-fired electric utility steam generating units in Indian Country.

<sup>a</sup> Include NAICS categories for source categories that own and operate electric generating units only.

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

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

After considering the economic impacts of today's final rule on small entities, EPA is certifying that this action will not have a significant economic impact on a substantial number of small entities.

EPA has assessed the potential impact of today's action on small entities. Pursuant to section 603 of the RFA, EPA prepared an initial regulatory flexibility analysis (IRFA) for the proposed rule (70 FR 49708, 49743). Approximately 140 of the estimated 3,000 EGUs potentially affected by today's action are owned by the 58 potentially affected small entities identified by EPA. Of the 140, 49 units are owned by small entities that also share ownership with large entities. Of these units, 34 are believed to be more than 50 percent owned by a large entity.

Beyond the 140, an additional 185 units owned by small entities in these states could be exempted because they have a nameplate capacity less than 25 MW. The above estimates include a number of units that are owned jointly by small and non-small entities. In addition, these estimates represent the maximum number of units potentially affected by the CAIR FIP. Only units in States that fail to submit an approved SIP would be directly regulated under the CAIR FIP. The actual number of affected units will depend on the number of States that do not submit a SIP or do not get their SIP submittal approved.

This analysis is based in large part on EPA's prior analysis of the potential impact of regulations implementing the CAIR model trading programs in the CAIR region. The analysis of the model trading programs was based on the best information available at that time and assumed that 75 small entities could be affected by any eventual implementation of the trading programs. However, EPA subsequently determined that some of these 75 entities either did not meet the definition of a small entity, or had units that were no longer generating. EPA's final analysis thus concluded that only 58 entities would be affected by today's action. Because

the Agency's analysis of small entity impacts was based on the earlier estimate of affected small entities (*i.e.*, the impacts were analyzed based on 75 affected entities, not 58 entities), the impact analysis overstates the maximum potential impact of today's action on small entities.

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

Of the 75 initially identified as potentially impacted by regulations implementing the model trading programs, EPA determined that 29 might experience compliance costs in excess of one percent of revenues in 2010 and 46 might in 2015. Potentially affected small entities experiencing compliance costs in excess of 1 percent of revenues have some potential for significant impact resulting from implementation of CAIR.

Pursuant to section 609(b) of the RFA, EPA convened a Small Business Advocacy Review Panel to obtain advice and recommendations from representatives of small entities that would potentially be regulated by the rule. A detailed discussion of the Panel's advice and recommendations is found in the Panel Report (EPA-HQ-OAR-2004-0076-0074). A summary of the Panel's recommendations is presented at 70 FR 49708, 49741.

A detailed discussion of the panel process is provided in the proposed rule. In the proposed rule, EPA took comment on all aspects of the proposed FIP and its impact on small entities. EPA did not receive significant comments in this regard. In addition, in section VI.D of the proposed rule preamble, EPA specifically took

comment on one of the panel recommendations, which was to consider providing a greater share of NO<sub>x</sub> allowances to small entities. A number of utilities submitted comments opposing such a provision, and one State expressed support for such a provision. These comments are discussed in more detail in section VI.F of this preamble.

The decision to certify that this rule will not have a significant economic impact on a substantial number of small entities is largely a result of two factors. First, because the rule only affects sources with a capacity greater than 25 MW, the majority of potentially affected small entities are exempted. The decision to include only units greater than 25 MW in size exempts 185 small entities that would otherwise be potentially affected by today's actions. In the final CAIR, EPA stated its belief that it is reasonable to assume no further control of air emissions from these smaller EGUs. Second, as EPA's analysis of potential impacts of this rulemaking on small entities progressed, we determined that our initial estimates were too high, because some of the entities that EPA had projected to be affected either did not meet the definition of a small entity, or had units that were no longer generating. Finally, as was discussed in the NPR, the use of cap-and-trade in general will limit impacts on small entities relative to a less flexible command-and-control program.

#### D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995, Public Law 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 UMR, 2 U.S.C. 1532, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of

\$100,000,000 or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and to adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted.

In addition, before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA, 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 EPA has determined that this rule contains a Federal mandate that may result in expenditures of \$100 million or more in 1 year. The costs of compliance will be borne predominately by sources in the private sector although a small number of sources owned by State and local governments may also be impacted. EPA prepared a written statement meeting the requirements of section 202 of the UMRA during the CAIR rulemaking process. The Federal mandates in today's action relate to its implementation of the CAIR and thus the analyses prepared for CAIR are applicable to today's action.

In accordance with section 202(c) of UMRA, EPA prepared the statement required by section 202 in conjunction with the Regulatory Impact Analysis prepared for the CAIR. This document is available at <http://www.epa.gov/cair/pdfs/finaltech08.pdf> and contains analyses that meet the requirements of section 202(a) of UMRA. That is, it contains a qualitative and quantitative assessment of the anticipated costs and benefits of the Federal mandate; estimates of future compliance costs and any disproportionate budgetary effects upon any particular regions of the nation; and estimates of the effect on the national economy.

Consultation with State, local and Tribal governments potentially affected by the CAIR emission reduction requirements was conducted during the CAIR rulemaking process. Such consultation was conducted in a manner consistent with the intergovernmental consultation provisions of section 204 of the UMRA, and Executive Order 12875, "Enhancing the Intergovernmental Partnership."

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, development of a small government plan under section 203 of the Act is not required. The requirements in this action do not distinguish EGUs based on ownership, either for those units that are included within the scope of the rule or for those units that are exempted by the generating capacity cut-off. Consequently, the rule has no requirements that uniquely affect small governments that own or operate EGUs within the region. Further, with respect to the significance of the rule's provisions, EPA's UMRA analysis 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.

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

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

This rule does not have federalism implications. It does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. These effects do not occur from the final rule itself because it is the provisions of the CAA that require EPA, after a State has failed to submit a SIP or a complete SIP, to make a finding to that effect and then to promulgate a FIP within 2 years of the

finding. Although EPA is exercising discretion to promulgate the FIP within the early part of the 2-year period, EPA intends to rescind the FIP for each State that submits a SIP that EPA approves, and, if the FIP remains, sources are not required to implement controls until after the close of the 2-year period. Moreover, as emphasized throughout the preamble, States are not required to adopt the FIP provisions, or any particular portion thereof, in order for EPA to approve their SIPs. Thus, Executive Order 13132 does not apply to this rule.

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

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

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

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

If one assumes a Tribe is implementing a Tribal Implementation Plan, today's rule could have implications for that Tribe, but would

not impose substantial direct costs upon the Tribe, nor preempt Tribal law. The EPA has estimated the total annual private costs for the FIP for the CAIR region as implemented by State, local, and Tribal governments to be approximately \$2.4 billion in 2010 and \$3.6 billion in 2015 (1999\$). There are currently very few emissions sources in Indian country that could be affected by these rules and the percentage of Tribal land that will be impacted is very small. For Tribes that choose to regulate sources in Indian country, the costs would primarily be attributed to inspecting regulated facilities and enforcing adopted regulations.

EPA consulted with Tribal officials in developing the final CAIR, which provides the basis for the FIPs in today's rule. The EPA encouraged Tribal input at an early stage. Also, EPA held periodic meetings with the States and the Tribes during the technical development of CAIR. Three meetings were held with the Crow Tribe, where the Tribe expressed concerns about potential impacts of the rule on their coal mine operations. In addition, EPA held three calls with Tribal environmental professionals to address concerns specific to the Tribes. These discussions have given EPA valuable information about Tribal concerns regarding the development of CAIR. During the CAIR rulemaking process, the EPA provided briefings for Tribal representatives and the newly formed National Tribal Air Association (NTAA), and other national Tribal forums. Input from Tribal representatives was taken into consideration in development of CAIR.

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

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

This rule is not subject to the Executive Order, because it does not involve decisions on environmental

health or safety risks that may disproportionately affect children. The EPA believes that the emissions reductions from the strategy in this rule would further improve air quality and would further improve children's health.

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

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

This final rule is a significant regulatory action under Executive Order 12866 and this rule may have a significant adverse effect on the supply, distribution, or use of energy. The energy impacts of this rule come from its implementation of the emission reduction requirements in the CAIR. The impacts for this rule will therefore not differ from those for the CAIR. These impacts are detailed in the final CAIR (70 FR 25315). As discussed in the CAIR NFR, EPA's analysis shows that the EGU emission reductions required under the trading programs are projected to result in a 1.6 percent or less increase in natural gas prices projected from 2010 to 2020. If base case natural gas prices are higher than EPA has assumed in its primary analysis, the impact on natural gas price will be even less.

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

Section 12(d) of the National Technology Transfer Advancement Act (NTTAA) of 1995 (Pub. L. 104-113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise

impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

Today's rule implements requirements largely identical to the requirements in the CAIR. This rule requires all sources that participate in the trading programs under part 97 (analogous to the CAIR SIP trading programs under part 96) to meet the applicable monitoring requirements of part 75. Part 75 already incorporates a number of voluntary consensus standards. Consistent with the Agency's Performance Based Measurement System (PBMS), part 75 sets forth performance criteria that allow the use of alternative methods to the ones set forth in part 75. The PBMS approach is intended to be more flexible and cost effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. At this time, EPA is not recommending any revisions to part 75; however, EPA periodically revises the test procedures set forth in part 75. When EPA revises the test procedures set forth in part 75 in the future, EPA will address the use of any new voluntary consensus standards that are equivalent. Currently, even if a test procedure is not set forth in part 75, EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified; however, any alternative methods must be approved through the petition process under § 75.66 before they are used under part 75.

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

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires Federal agencies to consider the impact of programs, policies, and activities on minority populations and low-income populations. According to EPA guidance, U.S. Environmental Protection Agency, 1998. Guidance for Incorporating Environmental Justice Concerns in EPAs NEPA Compliance Analyses. Office of Federal Activities, Washington, D.C., April, 1998. Agencies



are to assess whether minority or low-income populations face risks or a rate of exposure to hazards that are significant and that appreciably exceed or is likely to appreciably exceed the risk or rate to the general population or to the appropriate comparison group (EPA, 1998).

In accordance with Executive Order 12898, the Agency has considered whether this rule may have disproportionate negative impacts on minority or low income populations. The Agency expects this rule will lead to reductions in air pollution and exposures generally. In addition, EPA has conducted an air quality modeling analysis to estimate the changes in exposure of minority and low-income populations to ambient concentrations of PM<sub>2.5</sub> as a result of implementation of a cap-and-trade program similar to CAIR: the Acid Rain Program. The analysis shows that each racial, ethnic, and income-level group studied is projected to experience similar average improvement in ambient concentrations of PM<sub>2.5</sub> in the eastern U.S. (where the vast majority of the emission reductions took place) as a result of the Acid Rain Program in 2010. No disproportionately high and adverse human health or environmental effects of the Acid Rain Program were found for any minority, low-income, or other population. For these reasons, negative impacts to these sub-populations that appreciably exceed similar impacts to the general population are not expected.

#### K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Therefore, EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective June 27, 2006.

#### List of Subjects

##### 40 CFR Parts 51 and 52

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental

relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides.

##### 40 CFR Parts 72, 73, 74, and 78

Environmental protection, Acid rain, Administrative practice and procedure, Air pollution control, Electric utilities, Intergovernmental relations, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur oxides.

##### 40 CFR Parts 96 and 97

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

Dated: March 15, 2006.

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

■ For the reasons set forth in the preamble, parts 51, 52, 72, 73, 74, 78, 96, and 97 of chapter I of title 40 of the Code of Federal Regulations are amended as follows:

#### PART 51—[AMENDED]

■ 1. The authority citation for Part 51 continues to read as follows:

**Authority:** 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

■ 2. Section 51.123 is amended as follows:

■ a. In paragraph (o)(2)(ii)(B), by revising the words "for the year after the year of" to read "for the 4th year after the year of" and by removing the word "and" at the end;

■ b. In paragraph (o)(2)(ii)(C), by revising the words "allocated." to read "allocated; and";

■ c. By adding a new paragraph (o)(2)(ii)(D);

■ d. By adding a new paragraph (p);

■ e. In paragraph (cc), by amending the definition of "Electric generating unit" or "EGU" by:

■ i. In paragraph (1) of the definition, by redesignating the paragraph as paragraph "(1)(i)", by revising the words "since the start-up" to read "since the later of November 15, 1990 or the start-up", and by adding a new paragraph (1)(ii); and

■ ii. By revising paragraph (2) of the definition; and

■ f. In paragraph (cc), by adding a new definition for "Solid waste incineration unit"; and

■ g. By adding a new paragraph (ee).

#### § 51.123 Findings and requirements for submission of State implementation plan revisions relating to emissions of oxides of nitrogen pursuant to the Clean Air Interstate Rule.

\* \* \* \* \*

(o) \* \* \*

(ii) \* \* \*

(D) The State's methodology for allocating the compliance supplement pool must be substantively identical to § 97.143 (except that the permitting authority makes the allocations and the Administrator records the allocations made by the permitting authority) or otherwise in accordance with paragraph (e)(4) of this section.

\* \* \* \* \*

(p) Notwithstanding any other provision of this section, a State may adopt, and include in a SIP revision submitted by March 31, 2007, regulations relating to the Federal CAIR NO<sub>x</sub> Annual Trading Program under subparts AA through HH of part 97 of this chapter as follows:

(1) The State may adopt, as CAIR NO<sub>x</sub> allowance allocation provisions replacing the provisions in subpart EE of part 97 of this chapter:

(i) Allocation provisions substantively identical to subpart EE of part 96 of this chapter, under which the permitting authority makes the allocations; or

(ii) Any methodology for allocating CAIR NO<sub>x</sub> allowances to individual sources under which the permitting authority makes the allocations, provided that:

(A) The State's methodology must not allow the permitting authority to allocate CAIR NO<sub>x</sub> allowances for a year in excess of the amount in the State's Annual EGU NO<sub>x</sub> budget for such year.

(B) The State's methodology must require that, for EGUs commencing operation before January 1, 2001, the permitting authority will determine, and notify the Administrator of, each unit's allocation of CAIR NO<sub>x</sub> allowances by April 30, 2007 for 2009, 2010, and 2011 and by October 31, 2008 and October 31 of each year thereafter for the 4th year after the year of the notification deadline.

(C) The State's methodology must require that, for EGUs commencing operation on or after January 1, 2001, the permitting authority will determine, and notify the Administrator of, each unit's allocation of CAIR NO<sub>x</sub> allowances by October 31 of the year for which the CAIR NO<sub>x</sub> allowances are allocated.

(2) The State may adopt, as compliance supplement pool provisions replacing the provisions in § 97.143 of this chapter:

(i) Provisions for allocating the State's compliance supplement pool that are substantively identical to § 97.143 of this chapter, except that the permitting authority makes the allocations and the Administrator records the allocations made by the permitting authority;

(ii) Provisions for allocating the State's compliance supplement pool that are substantively identical to § 96.143 of this chapter; or

(iii) Other provisions for allocating the State's compliance supplement pool that are in accordance with paragraph (e)(4) of this section.

(3) The State may adopt CAIR opt-in unit provisions as follows:

(i) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR NO<sub>x</sub> allowances for CAIR opt-in units, that are substantively identical to subpart II of part 96 of this chapter and the provisions of subparts AA through HH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied;

(ii) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR NO<sub>x</sub> allowances for CAIR opt-in units, that are substantively identical to subpart II of part 96 of this chapter and the provisions of subparts AA through HH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions exclude § 96.188(b) of this chapter and the provisions of subpart II of part 96 of this chapter that apply only to units covered by § 96.188(b) of this chapter; or

(iii) Provisions for applications for CAIR opt-in units, including provisions for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR NO<sub>x</sub> allowances for CAIR opt-in units, that are substantively identical to subpart II of part 96 of this chapter and the provisions of subparts AA through HH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions exclude § 96.188(c) of this chapter and the provisions of subpart II of part 96 of

this chapter that apply only to units covered by § 96.188(c) of this chapter.

(cc) \* \* \*

*Electric generating unit or EGU* means:

(1)(i) \* \* \*

(ii) If a stationary boiler or stationary combustion turbine that, under paragraph (1)(i) of this section, is not an electric generating unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become an electric generating unit as provided in paragraph (1)(i) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(2) A unit that meets the requirements set forth in paragraphs (2)(i)(A), (2)(ii)(A), or (2)(ii)(B) of this definition paragraph shall not be an electric generating unit:

(i)(A) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition:

(1) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(2) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (2)(i)(A) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become an electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (2)(i)(A)(2) of this section.

(ii)(A) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition commencing operation before January 1, 1985:

(1) Qualifying as a solid waste incineration unit; and

(2) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any

3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(B) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition commencing operation on or after January 1, 1985:

(1) Qualifying as a solid waste incineration unit; and

(2) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(C) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (2)(ii)(A) or (B) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become an electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

\* \* \* \* \*

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a “solid waste incineration unit” as defined in section 129(g)(1) of the Clean Air Act.

\* \* \* \* \*

(ee) Notwithstanding any other provision of this section, a State may adopt, and include in a SIP revision submitted by March 31, 2007, regulations relating to the Federal CAIR NO<sub>x</sub> Ozone Season Trading Program under subparts AAAA through HHHH of part 97 of this chapter as follows:

(1) The State adopt, as applicability provisions replacing the provisions in § 97.304 of this chapter, provisions for applicability that are substantively identical to the provisions in § 96.304 of this chapter expanded to include all non-EGUs subject to the State's emissions trading program approved under § 51.121(p).

(2) The State may adopt, as CAIR NO<sub>x</sub> Ozone Season allowance allocation provisions replacing the provisions in subpart EEEE of part 97 of this chapter:

(i) Allocation provisions substantively identical to subpart EEEE of part 96 of this chapter, under which the permitting authority makes the allocations; or

(ii) Any methodology for allocating CAIR NO<sub>x</sub> Ozone Season allowances to

individual sources under which the permitting authority makes the allocations, provided that:

(A) The State may provide for issuance of an amount of CAIR Ozone Season NO<sub>x</sub> allowances for an ozone season, in addition to the amount in the State's Ozone Season EGU NO<sub>x</sub> Budget for such ozone season, not exceeding the portion of the State's trading program budget, under the State's emissions trading program approved under § 51.121(p), attributed to the non-EGUs that the applicability provisions in § 96.304 of this chapter are expanded to include under paragraph (ee)(1) of this section.

(B) The State's methodology must not allow the State to allocate CAIR Ozone Season NO<sub>x</sub> allowances for an ozone season in excess of the amount in the State's Ozone Season EGU NO<sub>x</sub> Budget for such ozone season plus any additional amount of CAIR Ozone Season NO<sub>x</sub> allowances issued under paragraph (ee)(2)(ii)(A) of this section for such ozone season.

(C) The State's methodology must require that, for EGUs commencing operation before January 1, 2001, the permitting authority will determine, and notify the Administrator of, each unit's allocation of CAIR NO<sub>x</sub> Ozone Season allowances by April 30, 2007 for 2009, 2010, and 2011 and by October 31, 2008 and October 31 of each year thereafter for the 4th year after the year of the notification deadline.

(D) The State's methodology must require that, for EGUs commencing operation on or after January 1, 2001, the permitting authority will determine, and notify the Administrator of, each unit's allocation of CAIR NO<sub>x</sub> Ozone Season allowances by July 31 of the year for which the CAIR NO<sub>x</sub> Ozone Season allowances are allocated.

(3) The State may adopt CAIR opt-in unit provisions as follows:

(i) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR NO<sub>x</sub> Ozone Season allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAAA through HHHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied;

(ii) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and

recordation of CAIR NO<sub>x</sub> Ozone Season allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAAA through HHHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions exclude § 96.388(b) of this chapter and the provisions of subpart III of part 96 of this chapter that apply only to units covered by § 96.388(b) of this chapter; or

(iii) Provisions for applications for CAIR opt-in units, including provisions for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR NO<sub>x</sub> allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAAA through HHHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions exclude § 96.388(c) of this chapter and the provisions of subpart III of part 96 of this chapter that apply only to units covered by § 96.388(c) of this chapter.

■ 3. Section 51.124 is amended as follows:

■ a. In paragraph (q), by amending the definition of "Electric generating unit" or "EGU" by:

■ i. In paragraph (1) of the definition, redesignating the paragraph as paragraph "(1)(i)", revising the words "since the start-up" to read "since the later of November 15, 1990 or the start-up", and adding a new paragraph (1)(ii); and

■ ii. Revising paragraph (2) of the definition; and

■ b. In paragraph (q), add a new definition for "Solid waste incineration unit"; and

■ c. Add a new paragraph (r).

**§ 51.124 Findings and requirements for submission of State implementation plan revisions relating to emissions of sulfur dioxide pursuant to the Clean Air Interstate Rule.**

\* \* \* \* \*

(q) \* \* \*

*Electric generating unit or EGU* means:

(1)(i) \* \* \*

(ii) If a stationary boiler or stationary combustion turbine that, under paragraph (1)(i) of this section, is not an electric generating unit begins to combust fossil fuel or to serve a

generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become an electric generating unit as provided in paragraph (1)(i) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(2) A unit that meets the requirements set forth in paragraphs (2)(i)(A), (2)(ii)(A), or (2)(ii)(B) of this definition paragraph shall not be an electric generating unit:

(i)(A) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition:

(1) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(2) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (2)(i)(A) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become an electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (2)(i)(A)(2) of this section.

(ii)(A) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition commencing operation before January 1, 1985:

(1) Qualifying as a solid waste incineration unit; and

(2) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(B) Any unit that is an electric generating unit under paragraph (1)(i) or (ii) of this definition commencing operation on or after January 1, 1985:

(1) Qualifying as a solid waste incineration unit; and

(2) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis)

and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(C) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (2)(ii)(A) or (B) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become an electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

\* \* \* \* \*

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

\* \* \* \* \*

(r) Notwithstanding any other provision of this section, a State may adopt, and include in a SIP revision submitted by March 31, 2007, regulations relating to the Federal CAIR SO<sub>2</sub> Trading Program under subparts AAA through HHH of part 97 of this chapter as follows. The State may adopt the following CAIR opt-in unit provisions:

(1) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR SO<sub>2</sub> allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAA through HHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied;

(2) Provisions for CAIR opt-in units, including provisions for applications for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR SO<sub>2</sub> allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAA through HHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions

exclude § 96.288(b) of this chapter and the provisions of subpart III of part 96 of this chapter that apply only to units covered by § 96.288(b) of this chapter; or

(3) Provisions for applications for CAIR opt-in units, including provisions for CAIR opt-in permits, approval of CAIR opt-in permits, treatment of units as CAIR opt-in units, and allocation and recordation of CAIR SO<sub>2</sub> allowances for CAIR opt-in units, that are substantively identical to subpart III of part 96 of this chapter and the provisions of subparts AAA through HHH that are applicable to CAIR opt-in units or units for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied, except that the provisions exclude § 96.288(c) of this chapter and the provisions of subpart III of part 96 of this chapter that apply only to units covered by § 96.288(c) of this chapter.

## PART 52—[AMENDED]

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

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

### Subpart A—General Provisions

■ 2. Subpart A is amended by adding §§ 52.35 and 52.36 to read as follows:

#### § 52.35 What are the requirements of the Federal Implementation Plans (FIPs) for the Clean Air Interstate Rule relating to emissions of nitrogen oxides?

The Federal CAIR NO<sub>x</sub> Annual Trading Program provisions of part 97 of this chapter constitute the Clean Air Interstate Rule Federal Implementation Plan provisions that relate to annual emissions of nitrogen oxides (NO<sub>x</sub>). These provisions apply to sources in each State that is described in § 51.123(c)(1) and (2) of this chapter, Delaware, and New Jersey, each of which States is subject to a finding by the Administrator that the State failed to submit a State Implementation Plan (SIP) to satisfy the requirements of section 110(a)(2)(D)(I) of the Clean Air Act for the PM<sub>2.5</sub> NAAQS. The Federal CAIR NO<sub>x</sub> Ozone Season Trading Program provisions of part 97 of this chapter constitute the Clean Air Interstate Rule Federal Implementation Plan provisions for emissions of nitrogen oxides (NO<sub>x</sub>) during the ozone season, as defined in § 97.302 of this chapter. These provisions apply to sources in each State that is described in § 51.123(c)(1) and (3) of this chapter, each of which States is subject to a finding by the Administrator that the State failed to submit a State Implementation Plan (SIP) to satisfy the requirements of section 110(a)(2)(D)(I) of

the Clean Air Act for the 8-hour ozone NAAQS. These provisions do not invalidate or otherwise affect the obligations of States, emissions sources, or other responsible entities with respect to all portions of plans approved or promulgated under this part, nor the obligations of States under the requirements of § 51.123 and 51.125 of this chapter.

#### § 52.36 What are the requirements of the Clean Air Interstate Rule Federal Implementation Plans relating to emissions of sulfur dioxide?

The Federal CAIR SO<sub>2</sub> Trading Program provisions of part 97 of this chapter constitute the Clean Air Interstate Rule Federal Implementation Plan provisions for emissions of sulfur dioxide (SO<sub>2</sub>). These provisions apply to sources in each State that is described in § 51.124(c) of this chapter, Delaware, and New Jersey, each of which States is subject to an EPA finding that the State failed to submit a State Implementation Plan (SIP) to satisfy the requirements of section 110(a)(2)(D)(I) of the Clean Air Act for the PM<sub>2.5</sub> NAAQS. These provisions do not invalidate or otherwise affect the obligations of States, emissions sources, or other responsible entities with respect to all portions of plans approved or promulgated under this part, nor the obligations of States under the requirements of §§ 51.124 and 51.125 of this chapter.

### Subpart B—Alabama

■ 3. Subpart B is amended by adding §§ 52.54 and 52.55 to read as follows:

#### § 52.54 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?

The owner or operator of each NO<sub>x</sub> source located within the State of Alabama and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

#### § 52.55 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?

The owner or operator of each SO<sub>2</sub> source located within the State of Alabama and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart E—Arkansas**

- 4. Subpart E is amended by adding §§ 52.184 to read as follows:

**§ 52.184 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Arkansas and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Ozone Season Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart H—Connecticut**

- 5. Subpart H is amended by adding §§ 52.386 to read as follows:

**§ 52.386 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Connecticut and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Ozone Season Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart I—Delaware**

- 6. Subpart I is amended by adding §§ 52.440 and 52.441 to read as follows:

**§ 52.440 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Delaware and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.441 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Delaware and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart J—District of Columbia**

- 7. Subpart J is amended by adding §§ 52.484 and 52.485 to read as follows:

**§ 52.484 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the District of Columbia and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.485 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the District of Columbia and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart K—Florida**

- 8. Subpart K is amended by adding §§ 52.540 and 52.541 to read as follows:

**§ 52.540 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Florida and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.541 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Florida and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart L—Georgia**

- 9. Subpart L is amended by adding §§ 52.584 and 52.585 to read as follows:

**§ 52.584 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Georgia and for which requirements are set forth under Federal CAIR NO<sub>x</sub> Annual Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.585 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Georgia and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart O—Illinois**

- 10. Subpart O is amended by adding §§ 52.745 and 52.746 to read as follows:

**§ 52.745 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Illinois and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.746 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Illinois and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart P—Indiana**

- 11. Subpart P is amended by adding §§ 52.789 and 52.790 to read as follows:

**§ 52.789 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Indiana and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.790 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Indiana and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart Q—Iowa**

■ 12. Subpart Q is amended by adding §§ 52.840 and 52.841 to read as follows:

**§ 52.840 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Iowa and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.841 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Iowa and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart S—Kentucky**

■ 13. Subpart S is amended by adding §§ 52.940 and 52.941 to read as follows:

**§ 52.940 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Kentucky and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.941 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Kentucky and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart T—Louisiana**

■ 14. Subpart T is amended by adding §§ 52.984 and 52.985 to read as follows:

**§ 52.984 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Louisiana and for which requirements are set forth under the Federal CAIR

NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.985 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Louisiana and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart V—Maryland**

■ 15. Subpart V is amended by adding §§ 52.1084 and 52.1085 to read as follows:

**§ 52.1084 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Maryland and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1085 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Maryland and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart W—Massachusetts**

■ 16. Subpart W is amended by adding § 52.1140 to read as follows:

**§ 52.1140 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Massachusetts and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Ozone Season Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart X—Michigan**

■ 17. Subpart X is amended by adding §§ 52.1186 and 52.1187 to read as follows:

**§ 52.1186 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Michigan and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1187 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Michigan and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart Y—Minnesota**

■ 18. Subpart Y is amended by adding §§ 52.1240 and 52.1241 to read as follows:

**§ 52.1240 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Minnesota and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1241 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Minnesota and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart Z—Mississippi**

■ 19. Subpart Z is amended by adding §§ 52.1284 and 52.1285 to read as follows:

**§ 52.1284 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Mississippi and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must

comply with such applicable requirements.

**§ 52.1285 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Mississippi and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart AA—Missouri**

■ 20. Subpart AA is amended by adding §§ 52.1341 and 52.1342 to read as follows:

**§ 52.1341 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Missouri and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1342 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Missouri and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart FF—New Jersey**

■ 21. Subpart FF is amended by adding §§ 52.1584 and 52.1585 to read as follows:

**§ 52.1584 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of New Jersey and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Program in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1585 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of New Jersey and for which requirements are

set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart HH—New York**

■ 22. Subpart HH is amended by adding §§ 52.1684 and 52.1685 to read as follows:

**§ 52.1684 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of New York and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1685 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of New York and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart II—North Carolina**

■ 23. Subpart II is amended by adding §§ 52.1784 and 52.1785 to read as follows:

**§ 52.1784 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of North Carolina and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1785 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of North Carolina and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart KK—Ohio**

■ 24. Subpart KK is amended by adding §§ 52.1891 and 52.1892 to read as follows:

**§ 52.1891 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Ohio and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.1892 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Ohio and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart NN—Pennsylvania**

■ 25. Subpart NN is amended by adding §§ 52.2040 and 52.2041 to read as follows:

**§ 52.2040 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Pennsylvania and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2041 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Pennsylvania and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart PP—South Carolina**

■ 26. Subpart PP is amended by adding §§ 52.2140 and 52.2141 to read as follows:

**§ 52.2140 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of South Carolina and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must



comply with such applicable requirements.

**§ 52.2141 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of South Carolina and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart RR—Tennessee**

■ 27. Subpart RR is amended by adding §§ 52.2240 and 52.2241 to read as follows:

**§ 52.2240 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Tennessee and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2241 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Tennessee and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart SS—Texas**

■ 28. Subpart SS is amended by adding §§ 52.2283 and 52.2284 to read as follows:

**§ 52.2283 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Texas and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual Trading Program in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2284 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Texas and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading

Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart VV—Virginia**

■ 29. Subpart VV is amended by adding §§ 52.2440 and 52.2441 to read as follows:

**§ 52.2440 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Virginia and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2441 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Virginia and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart XX—West Virginia**

■ 30. Subpart XX is amended by adding §§ 52.2540 and 52.2541 to read as follows:

**§ 52.2540 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of West Virginia and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2541 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of West Virginia and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**Subpart YY—Wisconsin**

■ 31. Subpart YY is amended by adding §§ 52.2587 and 52.2588 to read as follows:

**§ 52.2587 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of nitrogen oxides?**

The owner or operator of each NO<sub>x</sub> source located within the State of Wisconsin and for which requirements are set forth under the Federal CAIR NO<sub>x</sub> Annual and Ozone Season Trading Programs in part 97 of this chapter must comply with such applicable requirements.

**§ 52.2588 Interstate pollutant transport provisions; What are the FIP requirements for decreases in emissions of sulfur dioxide?**

The owner or operator of each SO<sub>2</sub> source located within the State of Wisconsin and for which requirements are set forth under the Federal CAIR SO<sub>2</sub> Trading Program in part 97 of this chapter must comply with such applicable requirements.

**PART 72—[AMENDED]**

■ 1. The authority citation for Part 72 continues to read as follows:

**Authority:** 42 U.S.C. 7601 and 7651, *et seq.*

■ 2. Section 72.2 is amended, in the definition of “Receive or receipt”, by revising the words “official correspondence log” to read “official log”.

■ 3. Section 72.7 is amended as follows:

■ a. By revising paragraph (f)(2); and  
■ b. In paragraph (f)(4)(i), by revising the words “become an affected unit under the Acid Rain Program and parts 70 and 71 of this chapter” to read, for purposes of applying parts 70 and 71 of this chapter, shall be treated as an affected unit under the Acid Rain Program”. The revision reads as follows:

**§ 72.7 New units exemption.**

\* \* \* \* \*

(f) \* \* \*

(2) For any period for which a unit is exempt under this section:

(i) For purposes of applying parts 70 and 71 of this chapter, the unit shall not be treated as an affected unit under the Acid Rain Program and shall continue to be subject to any other applicable requirements under parts 70 and 71 of this chapter.

(ii) The unit shall not be eligible to be an opt-in source under part 74 of chapter.

\* \* \* \* \*

■ 4. Section 72.8 is amended as follows:

■ a. By revising paragraph (d)(4); and  
■ b. In paragraph (d)(6)(i) introductory text, by revising the words “become an affected unit under the Acid Rain Program and parts 70 and 71 of this chapter” to read, “for purposes of

applying parts 70 and 71 of this chapter, shall be treated as an affected unit under the Acid Rain Program”.

The revision reads as follows:

**§ 72.8 Retired units exemption.**

\* \* \* \* \*

(d) \* \* \*

(4) For any period for which a unit is exempt under this section:

(i) For purposes of applying parts 70 and 71 of this chapter, the unit shall not be treated as an affected unit under the Acid Rain Program and shall continue to be subject to any other applicable requirements under parts 70 and 71 of this chapter.

(ii) The unit shall not be eligible to be an opt-in source under part 74 of chapter.

\* \* \* \* \*

**§ 72.20 [Amended]**

■ 5. Section 72.20 is amended, in paragraph (b), by revising the words “his or her actions” to read “his or her representations, actions”.

**§ 72.22 [Amended]**

■ 6. Section 72.22 is amended, in paragraph (b), by revising the words “any action, representation, or failure to act” to read “any representation, action, inaction, or submission” whenever they appear.

**§ 72.23 [Amended]**

■ 7. Section 72.23 is amended as follows:

■ a. In paragraphs (a) and (b), by revising the words “submissions, actions, and inactions” to read “representations, actions, inactions, and submissions”; and

■ b. In paragraph (c)(1), by revising the words “a new owner” to read “an owner”, by revising the words “such new owner” to read “such owner”, by revising the words “submissions, actions, and inactions” to read “representations, actions, inactions, and submissions”, and by revising the words “the new owner” to read “the owner.”

**§ 72.24 [Amended]**

■ 8. Section 72.24 is amended as follows:

■ a. In paragraph (a)(1) by revising the words “is submitted.” to read “is submitted, including identification and nameplate capacity of each generator served by each such unit”;

■ b. In paragraph (a)(6), by revising the words “actions, inactions, or submissions” to read “representations, actions, inactions, or submissions”; and

■ c. In paragraph (a)(9)(ii), by revising the words “or, if such multiple” to read “, except that, if such multiple”.

**§ 72.25 [Amended]**

■ 9. Section 72.25 is amended, in paragraph (b), by revising the words “submission, action or inaction” to read “representation, action, inaction, or submission” and revise the words “submission, action, or inaction” to read “representation, action, inaction, or submission”.

■ 10. Add a new 72.26 to read as follows:

**§ 72.26 Delegation by designated representative and alternate designated representative.**

(a) A designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission (in a format prescribed by the Administrator) to the Administrator provided for or required under this part and parts 73 through 77 of this chapter.

(b) An alternate designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission (in a format prescribed by the Administrator) to the Administrator provided for or required under this part and parts 73 through 77 of this chapter.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the designated representative or alternate designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such designated representative or alternate designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such designated representative or alternate designated representative, as appropriate:

(i) “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a designated representative or alternate designated representative, as appropriate, and

before this notice of delegation is superseded by another notice of delegation under 40 CFR 72.26(d) shall be deemed to be an electronic submission by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 72.26(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 72.26 is terminated.”

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the designated representative or alternate designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such designated representative or alternate designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the designated representative or alternate designated representative submitting such notice of delegation.

**PART 73—[AMENDED]**

■ 1. The authority citation for part 73 continues to read as follows:

*Authority:* 42 U.S.C. 7601 and 7651, *et seq.*

**§ 73.31 [Amended]**

■ 2. Section 73.31 is amended, in paragraph (c)(1)(v), by revising the words “actions, inactions, or submissions” to read “representations, actions, inactions, or submissions”.

■ 3. Section 73.33 is amended as follows:

■ a. In paragraph (d)(4), by revising the words “action, representation, or failure to act” to read “representation, action, inaction, or submission” and by revising the word “an action” to read “a representation, action, inaction, or submission”;

■ b. In paragraph (e), by revising the word “actions” to read “representations, actions, inactions, or submissions”;

■ c. In paragraph (f), by revising the words “any submission to” to read “any representation, action, inaction, or submission to” and revise the words “the recordation of transfers submitted

by” to read “any representation, action, inaction, or submission of”; and

■ d. By adding a new paragraph (g) to read as follows:

**§ 73.33 Authorized account representative.**

\* \* \* \* \*

(g) *Delegation by authorized account representative and alternate authorized account representative.* (1) An authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission (in a format prescribed by the Administrator) to the Administrator provided for or required under this part.

(2) An alternate authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission (in a format prescribed by the Administrator) to the Administrator provided for or required under this part.

(3) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (g)(1) or (2) of this section, the authorized account representative or alternate authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(i) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such authorized account representative or alternate authorized account representative;

(ii) The name, address, e-mail address, telephone number, and, facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(iii) For each such natural person, a list of the type or types of electronic submissions under paragraph (g)(1) or (2) of this section for which authority is delegated to him or her;

(iv) The following certification statements by such authorized account representative or alternate authorized account representative:

(A) “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a authorized account representative or alternate authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 73.33(g)(4) shall be deemed to be an electronic submission by me.”

(B) “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 73.33(g)(4), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 73.33(g) is eliminated.”

(4) A notice of delegation submitted under paragraph (g)(3) of this section shall be effective, with regard to the authorized account representative or alternate authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such authorized account representative or alternate authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(5) Any electronic submission covered by the certification in paragraph (g)(3)(iv)(A) of this section and made in accordance with a notice of delegation effective under paragraph (g)(4) of this section shall be deemed to be an electronic submission by the designated representative or alternate designated representative submitting such notice of delegation.

**PART 74—[AMENDED]**

■ 1. The authority citation for Part 74 continues to read as follows:

*Authority:* 7601 and 7651 *et seq.*

**§ 74.4 [Amended]**

■ 2. In § 74.4, paragraph (c) is removed.

**PART 78—[AMENDED]**

■ 1. The authority citation for part 78 continues to read as follows:

*Authority:* 42 U.S.C. 7401, 7403, 7410, 7426, 7601, and 7651, *et seq.*

■ 2. Section 78.1 is amended as follows:

■ a. In paragraph (b)(8)(ii), by revising “§ 97.256” to read “§ 96.256”.

■ b. By adding new paragraphs (b)(10), (b)(11), and (b)(12) to read as follows:

**§ 78.1 Purpose and scope.**

\* \* \* \* \*

(b) \* \* \*  
(10) Under subparts AA through II of part 97 of this chapter,

(i) The decision on the allocation of CAIR NO<sub>x</sub> allowances under subpart EE of part 97 of this chapter.

(ii) The decision on the deduction of CAIR NO<sub>x</sub> allowances, and the adjustment of the information in a submission and the decision on the

deduction or transfer of CAIR NO<sub>x</sub> allowances based on the information as adjusted, under § 97.154 of this chapter;

(iii) The correction of an error in a CAIR NO<sub>x</sub> Allowance Tracking System account under § 97.156 of this chapter;

(iv) The decision on the transfer of CAIR NO<sub>x</sub> allowances under § 97.161 of this chapter;

(v) The finalization of control period emissions data, including retroactive adjustment based on audit;

(vi) The approval or disapproval of a petition under § 97.175 of this chapter.

(11) Under subparts AAA through III of part 97 of this chapter,

(i) The decision on the deduction of CAIR SO<sub>2</sub> allowances, and the adjustment of the information in a submission and the decision on the deduction or transfer of CAIR SO<sub>2</sub> allowances based on the information as adjusted, under § 97.254 of this chapter;

(ii) The correction of an error in a CAIR SO<sub>2</sub> Allowance Tracking System account under § 97.256 of this chapter;

(iii) The decision on the transfer of CAIR SO<sub>2</sub> allowances under § 97.261 of this chapter;

(iv) The finalization of control period emissions data, including retroactive adjustment based on audit;

(v) The approval or disapproval of a petition under § 97.275 of this chapter.

(12) Under subparts AAAA through IIII of part 97 of this chapter,

(i) The decision on the allocation of CAIR NO<sub>x</sub> Ozone Season allowances under subpart EEEE of part 97 of this chapter.

(ii) The decision on the deduction of CAIR NO<sub>x</sub> Ozone Season allowances, and the adjustment of the information in a submission and the decision on the deduction or transfer of CAIR NO<sub>x</sub> Ozone Season allowances based on the information as adjusted, under § 97.354 of this chapter;

(iii) The correction of an error in a CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account under § 97.356 of this chapter;

(iv) The decision on the transfer of CAIR NO<sub>x</sub> Ozone Season allowances under § 97.361;

(v) The finalization of control period emissions data, including retroactive adjustment based on audit;

(vi) The approval or disapproval of a petition under § 97.375 of this chapter.

\* \* \* \* \*

■ 3. Section 78.3 is amended as follows:

■ a. In paragraph (b)(3)(i), by revising the words “under paragraph (a)(4), (5), or (6) of this section” to read “under paragraph (a)(4), (5), (6), (7), (8), or (9) of this section”;

■ b. In paragraph (d)(3), by revising the words “account certificate of

representation submitted by a CAIR designated representative" to read "certificate of representation submitted by a CAIR designated representative" and by revising the words "or subparts AAAA through IIII of part 96 of this chapter", the words "subparts AAAA through IIII of part 96 of this chapter, or under part 97 of this chapter"; and

■ c. By adding new paragraphs (a)(7), (a)(8), (a)(9), (d)(8), (d)(9), and (d)(10) to read as follows:

**§ 78.3 Petition for administrative review and request for evidentiary hearing.**

(a) \* \* \*

(7) The following persons may petition for administrative review of a decision of the Administrator that is made under subparts AA through II of part 97 of this chapter and that is appealable under § 78.1(a):

(i) The CAIR designated representative for a unit or source, or the CAIR authorized account representative for any CAIR NO<sub>x</sub> Allowance Tracking System account, covered by the decision; or

(ii) Any interested person.

(8) The following persons may petition for administrative review of a decision of the Administrator that is made under subparts AAA through III of part 97 and that is appealable under § 78.1(a):

(i) The CAIR designated representative for a unit or source, or the CAIR authorized account representative for any CAIR SO<sub>2</sub> Allowance Tracking System account, covered by the decision; or

(ii) Any interested person.

(9) The following persons may petition for administrative review of a decision of the Administrator that is made under subparts AAAA through III of part 97 and that is appealable under § 78.1(a):

(i) The CAIR designated representative for a unit or source, or the CAIR authorized account representative for any CAIR Ozone Season NO<sub>x</sub> Allowance Tracking System account, covered by the decision; or

(ii) Any interested person.

\* \* \* \* \*

(d) \* \* \*

(8) Any provision or requirement of subparts AA through II of part 97 of this chapter, including the standard requirements under § 97.106 of this chapter and any emission monitoring or reporting requirements.

(9) Any provision or requirement of subparts AAA through III of part 97 of this chapter, including the standard requirements under § 97.206 of this

chapter and any emission monitoring or reporting requirements.

(10) Any provision or requirement of subparts AAAA through IIII of part 97 of this chapter, including the standard requirements under § 97.306 of this chapter and any emission monitoring or reporting requirements.

**PART 96—NO<sub>x</sub> BUDGET TRADING PROGRAM AND CAIR NO<sub>x</sub> AND SO<sub>2</sub> TRADING PROGRAMS FOR STATE IMPLEMENTATION PLANS**

■ 1. The heading of part 96 is revised to read as set forth above.

■ 2. The authority citation for part 96 continues to read as follows:

**Authority:** 42 U.S.C. 7401, 7403, 7410, 7601, and 7651, *et seq.*

■ 3. Section 96.102 is amended as follows:

■ a. By revising the definition of "Allocate or allocation";

■ b. In the definition of "Allowance transfer deadline", by revising the words "midnight of March 1, if it is a business day, or, if March 1 is not a business day, midnight of the first business day thereafter" to read "midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day).";

■ c. In the definition of "Alternate CAIR designated representative", by revising the words "in accordance with" to read "in accordance with" and by adding at the end the words "If the CAIR NO<sub>x</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program.";

■ d. In the definition of "CAIR authorized account representative", by revising the words "subparts BB and II" to read "subparts BB, FF, and II";

■ e. In the definition of "CAIR designated representative", by adding at the end the words "If the CAIR NO<sub>x</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program.";

■ f. By revising the definition of "CAIR NO<sub>x</sub> allowance";

■ g. In the definition of "CAIR NO<sub>x</sub> allowance deduction or deduct CAIR NO<sub>x</sub> allowances", by adding, after the words "compliance account", the words "e.g.,";

■ h. In the definition of "CAIR NO<sub>x</sub> Annual Trading Program", by revising the words "§ 51.123 of this chapter," to read "§ 51.123 of this chapter or established by the Administrator in accordance with subparts AA through II

of part 97 of this chapter and §§ 51.123(p) and 52.35 of this chapter,";

■ i. In the definition of "CAIR NO<sub>x</sub> emissions limitation", by revising the words "tonnage equivalent of" to read "tonnage equivalent, in NO<sub>x</sub> emissions in a control period, of" and by revising the words "for a control period" to read "for the control period";

■ j. In the definition of "CAIR NO<sub>x</sub> Ozone Season source", by revising the words "includes one or more CAIR NO<sub>x</sub> Ozone Season units" to read "is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program";

■ k. In the definition of "CAIR NO<sub>x</sub> Ozone Season Trading Program", by revising the words "§ 51.123 of this chapter," to read "§ 51.123 of this chapter or established by the Administrator in accordance with subparts AAAA through IIII of part 97 of this chapter and §§ 51.123(ee) and 52.35 of this chapter,";

■ l. By removing the definition of "CAIR NO<sub>x</sub> Ozone Season unit";

■ m. In the definition of "CAIR SO<sub>2</sub> source", by revising the words "includes one or more CAIR SO<sub>2</sub> units" to read "is subject to the CAIR SO<sub>2</sub> Trading Program";

■ n. In the definition of "CAIR SO<sub>2</sub> Trading Program", by revising the words "§ 51.124 of this chapter," to read "§ 51.124 of this chapter or established by the Administrator in accordance with subparts AAA through III of part 97 of this chapter and §§ 51.124(r) and 52.36 of this chapter,";

■ o. By removing the definition of "CAIR SO<sub>2</sub> unit";

■ p. In paragraph (2) of the definition of "Cogeneration unit", by revising the words "calendar year after which" to read "calendar year after the calendar year in which";

■ q. In paragraph (2) of the definition of "Combustion turbine", by revising the words "any associated heat recovery steam generator" to read "any associated duct burner, heat recovery steam generator,";

■ r. By revising the definition of "Commence commercial operation";

■ s. By revising the definition of "Commence operation";

■ t. In the definition of "Control period", by revising the words "January 1 of a calendar year and" to read "January 1 of a calendar year, except as provided in § 96.106(c)(2), and";

■ u. By revising the definition of "Maximum design heat input";

■ v. In the definition of "Nameplate capacity", by revising the words "other deratings) as specified" to read "other deratings) as of such installation as specified" and by revising the words "maximum amount as specified" to read

“maximum amount as of such completion as specified”;

■ w. In the definition of “Oil-fired”, by revising the words “in a specified year.” to read “in a specified year and not qualifying as coal-fired.”;

■ x. In the definition of “Receive or receipt”, by revising the words “official correspondence log” to read “official log”; and

■ y. By adding new definitions of “Hg Budget Trading Program”, “Replacement, replace, or replaced”, and “Solid waste incineration unit” to read as follows:

#### § 96.102 Definitions.

*Allocate or allocation* means, with regard to CAIR NO<sub>x</sub> allowances, the determination by a permitting authority or the Administrator of the amount of such CAIR NO<sub>x</sub> allowances to be initially credited to a CAIR NO<sub>x</sub> unit, a new unit set-aside, or other entity.

*CAIR NO<sub>x</sub> allowance* means a limited authorization issued by a permitting authority or the Administrator under provisions of a State implementation plan that are approved under § 51.123(o)(1) or (2) or (p) of this chapter, or under subpart EE of part 97 or § 97.188 of this chapter, to emit one ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NO<sub>x</sub> Program. An authorization to emit nitrogen oxides that is not issued under provisions of a State implementation plan that are approved under § 51.123(o)(1) or (2) or (p) of this chapter or subpart EE of part 97 or § 97.188 of this chapter shall not be a CAIR NO<sub>x</sub> allowance.

*Commence commercial operation means*, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in § 96.105 and § 96.184(h).

(i) For a unit that is a CAIR NO<sub>x</sub> unit under § 96.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR NO<sub>x</sub> unit under § 96.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in

paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 96.105, for a unit that is not a CAIR NO<sub>x</sub> unit under § 96.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> unit under § 96.104.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

*Commence operation means*:

(1) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 96.184(h).

(2) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(3) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a

separate unit with a separate date for commencement of operation as defined in paragraph (1), (2), or (3) of this definition as appropriate, except as provided in § 96.184(h).

\* \* \* \* \*

*Hg Budget Trading Program* means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

\* \* \* \* \*

*Maximum design heat input* means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

\* \* \* \* \*

*Replacement, replace, or replaced* means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

\* \* \* \* \*

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a “solid waste incineration unit” as defined in section 129(g)(1) of the Clean Air Act.

\* \* \* \* \*

■ 4. Section 96.103 is revised to read as follows:

#### § 96.103 Measurements, abbreviations, and acronyms.

Measurements, abbreviations, and acronyms used in this subpart and subparts BB through II are defined as follows:

Btu—British thermal unit.

CO<sub>2</sub>—carbon dioxide

H<sub>2</sub>O—water

Hg—mercury

hr—hour

kW—kilowatt electrical

kWh—kilowatt hour

lb—pound

mmBtu—million Btu

MWe—megawatt electrical

MWh—megawatt hour

NO<sub>x</sub>—nitrogen oxides

O<sub>2</sub>—oxygen

ppm—parts per million

scfh—standard cubic feet per hour

SO<sub>2</sub>—sulfur dioxide

yr—year

■ 5. Section 96.104 is revised to read as follows:

**§ 96.104 Applicability.**

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR NO<sub>x</sub> units, and any source that includes one or more such units shall be a CAIR NO<sub>x</sub> source, subject to the requirements of this subpart and subparts BB through HH of this part: any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR NO<sub>x</sub> unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR NO<sub>x</sub> unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this section shall not be CAIR NO<sub>x</sub> units:

(1)(i) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (b)(1)(i) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets

the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

**§ 96.105 [Amended]**

■ 6. Section 96.105 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “§ 96.106(c)(4) through (8), § 96.107, and subparts EE through GG of this part” to read “§ 96.106(c)(4) through (7), § 96.107, § 96.108, and (subparts BB and EE through GG”;

■ b. In paragraph (b)(3), by revising the words “shall retain at the source” to read “shall retain, at the source”;

■ c. In paragraph (b)(7), by revising the words “commences operation and commercial operation” to read “commences commercial operation”.

**§ 96.106 [Amended]**

■ 7. Section 96.106 is amended as follows:

■ a. In paragraph (a)(1)(i), by revising the words “in § 96.121(a) and (b)” to read “in § 96.121”;

■ b. In paragraph (c)(2), by revising the words “under paragraph (c)(1) of this section” to read “under paragraph (c)(1) of this section for the control period” and by revising the words “under § 96.170(b)(1), (2), or (5)” to read “under § 96.170(b)(1), (2), or (5) and for each control period thereafter”;

■ c. In paragraph (c)(4), by revising the words “subpart EE” to read “subparts FF, GG, and II”;

■ d. In paragraph (c)(7), by revising the words “under subpart FF, GG, or II” to read “under subpart EE, FF, GG, or II”, by revising the words “from a CAIR NO<sub>x</sub> unit's compliance account” to read “from a CAIR NO<sub>x</sub> source's compliance account”, and by removing the words “that includes the CAIR NO<sub>x</sub> unit”;

■ e. In paragraph (d)(1), by removing the paragraph designation “(1)” and by redesignating paragraph (i) as paragraph (d)(1); and

■ f. By removing paragraph (d)(2) and by redesignating paragraph (ii) as paragraph (d)(2).

**§ 96.111 [Amended]**

■ 8. Section 96.111 is amended, in paragraph (c), by revising the words “§ 96.151 and 96.182” to read “96.115, 96.151, and 96.182”.

**§ 96.112 [Amended]**

■ 9. Section 96.112 is amended, in paragraph (c)(1), by revising the words “a new owner” to read “an owner”, by revising the words “such new owner” to read “such owner”, and by revising the words “the new owner” to read “the owner”.

**§ 96.113 [Amended]**

■ 10. Section 96.113 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “is submitted” to read “is submitted, including identification and nameplate capacity of each generator served by each such unit”;

■ b. In paragraph (a)(4)(iv), by revising the words “where a customer” to read “where a utility or industrial customer”.

■ 11. Add a new § 96.115 to read as follows:

**§ 96.115 Delegation by CAIR designated representative and alternate CAIR designated representative.**

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic

submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 96.115(d) shall be deemed to be an electronic submission by me."

(ii) "Until this notice of delegation is superseded by another notice of delegation under 40 CFR 96.115(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.115 is terminated."

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or

eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

#### § 96.120 [Amended]

■ 12. Section 96.120 is amended, in paragraph (a), by revising the words "otherwise by this subpart and" to read "otherwise by § 96.105, this subpart, and".

#### § 96.121 [Amended]

■ 13. Section 96.121 is amended as follows:

■ a. In paragraph (a), by revising the words "commences operation" to read "commences commercial operation, except as provided in § 96.183(a)"; and

■ b. In paragraph (b), by revising the words "permit renewal" to read "permit renewal, except as provided in § 96.183(b)".

#### § 96.123 [Amended]

■ 14. Section 96.123 is amended, in paragraph (b), by revising the words "subpart FF, GG, or II" to read "subpart EE, FF, GG, or II".

#### § 96.141 [Amended]

■ 15. Section 96.141 is amended as follows:

■ a. In paragraph (b)(1), removing the paragraph designation "(1)";

■ b. By removing paragraph (b)(2);

■ c. In paragraph (c)(1), removing the paragraph designation "(1)"; and

■ d. By removing paragraph (c)(2).

■ 16. Section 96.142 is amended as follows:

■ a. In paragraph (a)(2)(ii)(C), by revising the words "3,414 Btu/kWh" to read "3,413 Btu/kWh";

■ b. By revising paragraph (c) introductory text;

■ c. In paragraph (c)(1), by revising the words "2009 through 2013" to read "2009 through 2014" and by revising the words "in 2014" to read "in 2015";

■ d. In paragraph (c)(2), by revising the words "The CAIR NO<sub>x</sub> allowance allocation request must be submitted on or before July 1 of the first control period for which CAIR NO<sub>x</sub> allowances are requested" to read "A separate CAIR NO<sub>x</sub> allowance allocation request for each control period for which CAIR NO<sub>x</sub> allowances are sought must be submitted on or before May 1 of such control period"; and

■ e. In paragraph (c)(4)(ii), by revising the words "On or after July 1" to read "On or after May 1"; and revising to read as follows:

#### § 96.142 CAIR NO<sub>x</sub> allowance allocations.

\* \* \* \* \*

(c) For each control period in 2009 and thereafter, the permitting authority will allocate CAIR NO<sub>x</sub> allowances to CAIR NO<sub>x</sub> units in a State that are not allocated CAIR NO<sub>x</sub> allowances under paragraph (b) of this section because the units do not yet have a baseline heat input under paragraph (a) of this section or because the units have a baseline heat input but all CAIR NO<sub>x</sub> allowances available under paragraph (b) of this section for the control period are already allocated, in accordance with the following procedures:

\* \* \* \* \*

#### § 96.143 [Amended]

■ 17. Section 96.143 is amended as follows:

■ a. In paragraphs (b)(2), (c)(1), and (d), by revising the words "July 1" to read "May 1";

■ b. In paragraph (d)(3), by revising the words "'Unit's allocation' is the number of CAIR NO<sub>x</sub> allowances" to read "'Unit's allocation' is the amount of CAIR NO<sub>x</sub> allowances";

■ c. In paragraph (d)(4), by revising the words "paragraph (d)(3) or (4)" to read "paragraph (d)(2) or (3)"; and

■ d. In paragraph (d)(5), by revising the words "paragraph (d)(5)" to read "paragraph (d)(4)".

■ 18. Section 96.151 is amended as follows:

■ a. In paragraph (b)(2) introductory text, by revising the word "representative" to read "representative or alternate CAIR authorized account representative";

■ b. In paragraph (b)(3)(iii)(A), by revising the words "a new person" to read "a person", by revising the words "such new person" to read "such person", and by revising the words "the new person" to read "the person";

■ c. In paragraph (b)(3)(iii)(B), by revising the words "addition of persons" to read "addition of a new person";

■ d. In paragraph (b)(4) introductory text, by revising the word "representative" to read "representative or alternate CAIR authorized account representative";

■ e. In paragraphs (b)(4)(ii) and (iii), by revising the words "alternative CAIR" to read "alternate CAIR" whenever they appear; and

■ f. By adding a new paragraph (b)(5) to read as follows:



**§ 96.151 Establishment of accounts.**

\* \* \* \* \*

(b) \* \* \*

*(5) Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.*

(i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FF and GG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FF and GG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and, facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(C) For each such natural person, a list of the type or types of electronic submissions under paragraph (b)(5)(i) or (ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 96.151(b)(5)(iv) shall be deemed to be an electronic submission by me."; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative:

"Until this notice of delegation is superseded by another notice of delegation under 40 CFR 96.151 (b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.151 (b)(5) is terminated."

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

\* \* \* \* \*

■ 19. Section 96.153 is amended as follows:

■ a. In paragraph (a), by revising the words "By December 1, 2006," to read "By September 30, 2007," and revising the words "at a source" to read "at the source";

■ b. In paragraphs (b) and (d), by removing the words "or as determined by the Administrator"; and

■ c. By revising paragraph (c) to read as follows:

**§ 96.153 Recordation of CAIR NO<sub>x</sub> allowance allocations.**

\* \* \* \* \*

(c) By December 1, 2009 and December 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source, as submitted by the permitting authority in accordance with § 96.141(b), for the control period in the sixth year after the year of the applicable deadline for recordation under this paragraph.

\* \* \* \* \*

**§ 96.154 [Amended]**

■ 20. Section 96.154 is amended as follows:

■ a. In paragraph (a)(1), by revising the words "prior year;" to read "prior year; and";

■ b. In paragraph (a)(2), revising the words "§ 96.160 by the allowance transfer deadline for the control period; and" to read "§§ 96.160 and 96.161 by the allowance transfer deadline for the control period.";

■ c. By removing paragraph (a)(3);

■ d. In paragraph (c)(2)(ii), by revising the words "to any unit" to read "to any entity";

■ e. In paragraph (e), by revising the words "under paragraph (b) or (d) of this section" to read "under paragraphs (b) and (d) of this section and subpart II";

■ f. In paragraph (f)(2), by revising the words "of this section." to read "of this section, and record such deductions and transfers."

**§ 96.155 [Amended]**

■ 21. Section 96.155 is amended, in paragraph (b), by revising the words "§ 96.156, or subpart GG" to read "§ 96.156, or subpart GG or II".

**§ 96.157 [Amended]**

■ 22. Section 96.157 is amended, in paragraphs (a) and (b), by revising the words "§ 96.160" to read "§§ 96.160 and 96.161".

■ 23. Section 96.170 is amended as follows:

■ a. In paragraph (b) introductory text, by revising the words "The owner" to read "Except as provided in paragraph (e) of this section, the owner";

■ b. In paragraph (b)(5), by revising the words "paragraphs (b)(1), (2), and (4) of this section and solely for purposes of § 96.106(c)(2), for the owner" to read "paragraphs (b)(1) and (2) of this section, for the owner";

■ c. In paragraph (c)(1), by removing the paragraph designation "(1)" and by revising the words "Except as provided in paragraph (c)(2) of this section, the owner" to read "The owner";

■ d. By removing paragraph (c)(2);

■ e. In paragraph (d)(3), by revising the words "the atmosphere" to read "the atmosphere or heat input"; and

■ f. By adding a new paragraph (e) to read as follows:

**§ 96.170 General Requirements.**

\* \* \* \* \*

(e) *Long-term cold storage.* The owner or operator of a CAIR NO<sub>x</sub> unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

**§ 96.171 [Amended]**

■ 24. Section 96.171 is amended, in paragraph (c), by revising the words “§ 75.12, § 75.17, or subpart H of part 75” to read “§ 75.12 or § 75.17”.

**§ 96.173 [Amended]**

■ 25. Section 96.173 is amended by removing the words “, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the permitting authority”.

■ 26. Section 96.174 is amended as follows:

- a. In paragraph (d)(1)(i), by revising the words “2008; or” to read “2008;”;
- b. In paragraph (d)(1)(ii), by revising the words “2008.” to read “2008;”;
- c. By adding new paragraphs (d)(1)(iii) and (iv); and
- d. In paragraph (d)(3), by revising the words “or CAIR SO<sub>2</sub> Trading Program,” to read “, CAIR SO<sub>2</sub> Trading Program, or Hg Budget Trading Program,” and by revising the words “subparts F through H” to read “subparts F through I” and revising to read as follows:

**§ 96.174 Recordkeeping and reporting.**

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(iii) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart II of this part, the calendar quarter corresponding to the date specified in § 96.184(b); and

(iv) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a CAIR NO<sub>x</sub> opt-in unit under subpart II of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> Annual Trading Program as provided in § 96.184(g).

\* \* \* \* \*

**§ 96.176 [Removed]**

■ 27. Section 96.176 is removed.

■ 28. Section 96.183 is amended as follows:

- a. By revising paragraph (a)(5); and
- b. In paragraph (b)(2), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> opt-in unit” and revising to read as follows:

**§ 96.183 Applying for CAIR opt-in permit.**

(a) \* \* \*

(5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR NO<sub>x</sub>

allowances under § 96.188(b) or § 96.188(c) (subject to the conditions in §§ 96.184(h) and 96.186(g)). If allocation under § 96.188(c) is requested, this statement shall include a statement that the owners and operators of the unit intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

\* \* \* \* \*

**§ 96.184 [Amended]**

■ 29. Section 96.184 is amended as follows:

- a. In paragraph (c)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and for the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;
- b. In paragraph (d)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;
- c. In paragraph (d)(3), by revising the words “for such control period” with words “for such control periods”;
- d. In paragraph (f), by revising the words “CAIR NO<sub>x</sub> opt-in permit” to read “CAIR opt-in permit”; and
- e. In paragraph (h)(2), by revising the words “a CAIR opt-in unit” to read “a CAIR NO<sub>x</sub> opt-in unit”.

■ 30. Section 96.185 is amended as follows:

- a. In paragraph (a)(5), by revising the words “under § 96.188(c)” to read “§ 96.188(b) or § 96.188(c)”;
- b. By adding a new paragraph (c) to read as follows:

**§ 96.185 CAIR opt-in permit contents.**

\* \* \* \* \*

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR NO<sub>x</sub> opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

**§ 96.186 [Amended]**

■ 31. Section 96.186 is amended as follows:

- a. In paragraph (a), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> opt-in unit”; and
- b. In paragraph (b)(2), by revising the words “equal in number to” to read “equal in amount to”.

■ 32. Section 96.187 is amended as follows:

- a. In paragraph (b)(1), by revising the words “under § 96.123” to read “under

§ 96.123, and remove the CAIR opt-in permit provisions.”;

■ b. In paragraph (b)(2)(i), by revising the words “equal in number to” to read “equal in amount to”;

■ c. By revising paragraph (b)(3)(i);

■ d. In paragraph (b)(3)(ii), by revising the words “Notwithstanding paragraph (b)(3)(i) of this section, if” to read “If”, by revising the words “January 1” to read “December 31,” and by revising the words “number of CAIR NO<sub>x</sub> allowances” to read “amount of CAIR NO<sub>x</sub> allowances”; and

■ e. In paragraph (b)(3)(ii)(A), by revising the words “number of CAIR NO<sub>x</sub> allowances” to read “amount of CAIR NO<sub>x</sub> allowances” and revising to read as follows:

**§ 96.187 Change in regulatory status.**

\* \* \* \* \*

(b) \* \* \*

(3)(i) For every control period after the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 96.104, the CAIR NO<sub>x</sub> opt-in unit will be allocated CAIR NO<sub>x</sub> allowances under § 96.142.

\* \* \* \* \*

**§ 96.188 CAIR NO<sub>x</sub> allowance allocations to CAIR NO<sub>x</sub> opt-in units.**

■ 33. Section 96.188 is amended as follows:

- a. By revising the heading of the section as set forth above;
- b. In paragraph (a)(2), by revising the words “of the control period in which a CAIR opt-in unit” to read “of the control period after the control period in which a CAIR NO<sub>x</sub> opt-in unit”;
- c. In paragraph (c), by revising the words “issues a CAIR opt-in permit” to read “issues a CAIR opt-in permit (based on a demonstration of the intent to repower stated under § 96.183(a)(5))”; and
- d. In paragraph (d)(2), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> opt-in unit” and revising the words “CAIR opt-in unit”.

■ 34. Section 96.202 is amended as follows:

- a. By revising the definition of “Allocate or allocation”;
- b. In the definition of “Allowance transfer deadline”, by revising the words “midnight of March 1, if it is a business day, or, if March 1 is not a business day, midnight of the first business day thereafter” to read “midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day).”;
- c. In the definition of “Alternate CAIR designated representative”, by adding at the end the words “If the CAIR SO<sub>2</sub>

source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program.”;

■ d. In the definition of “CAIR authorized account representative”, by revising the words “subparts BBB and III” to read “subparts BBB, FFF, and III”;

■ e. In the definition of “CAIR designated representative”, by adding at the end the words “If the CAIR SO<sub>2</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program.”;

■ f. In the definition of “CAIR NO<sub>x</sub> Annual Trading Program”, by revising the words “§ 51.123 of this chapter,” to read “§ 51.123 of this chapter or established by the Administrator in accordance with subparts AA through II of part 97 of this chapter and §§ 51.123(p) and 52.35 of this chapter,”;

■ g. In the definition of “CAIR NO<sub>x</sub> Ozone Season source”, by revising the words “includes one or more CAIR NO<sub>x</sub> Ozone Season unit” to read “is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program”;

■ h. In the definition of “CAIR NO<sub>x</sub> Ozone Season Trading Program”, by revising the words “§ 51.123 of this chapter,” to read “§ 51.123 of this chapter or established by the Administrator in accordance with subparts AAAA through IIII of part 97 of this chapter and §§ 51.123(ee) and 52.35 of this chapter,”;

■ i. By removing the definition of “CAIR NO<sub>x</sub> Ozone Season unit”;

■ j. In the definition of “CAIR NO<sub>x</sub> source”, by revising the words “includes one or more CAIR NO<sub>x</sub> units” to read “is subject to the CAIR NO<sub>x</sub> Annual Trading Program”;

■ k. By removing the definition of “CAIR NO<sub>x</sub> unit”;

■ l. In the definition of “CAIR SO<sub>2</sub> allowance”, by revising in the introductory text the words “under § 96.288,” to read “under provisions of a State implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter or § 97.288 of this chapter,”, by designating the last sentence of the definition as paragraph (4), and by revising in paragraph (4) the words “(Program or under the provisions of a State implementation plan that is approved under § 51.124(o)(1) or (2) of this chapter” to read “(Program, provisions of a State implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter, or § 97.288 of this chapter”;

■ m. In the definition of “CAIR SO<sub>2</sub> allowance deduction or deduct CAIR SO<sub>2</sub> allowances”, by adding, after the words “compliance account”, the words “, e.g.,”;

■ n. In the definition of “CAIR SO<sub>2</sub> emissions limitation”, by revising the words “tonnage equivalent of” to read “tonnage equivalent, in SO<sub>2</sub> emissions in a control period, of” and by revising the words “for a control period” to read “for the control period”;

■ o. In the definition of “CAIR SO<sub>2</sub> Trading Program”, by revising the words “§ 51.124 of this chapter,” to read “§ 51.124 of this chapter or established by the Administrator in accordance with subparts AAA through III of part 97 of this chapter and §§ 51.124(r) and 52.36 of this chapter,”;

■ p. In paragraph (2) of the definition of “Cogeneration unit”, by revising the words “calendar year after which” to read “calendar year after the calendar year in which”;

■ q. In the definition of “Combustion turbine”, by revising the words “any associated heat recovery steam generator” to read “any associated duct burner, heat recovery steam generator,”;

■ r. By revising the definition of “Commence commercial operation”;

■ s. By revising the definition of “Commence operation”;

■ t. In the definition of “Control period”, by revising the words “January 1 of a calendar year and” to read “January 1 of a calendar year, except as provided in § 96.206(c)(2), and”;

■ u. By revising the definition of “Maximum design heat input”;

■ v. In the definition of “Nameplate capacity”, by revising the words “other deratings) as specified” to read “other deratings) as of such installation as specified” and by revising the words “maximum amount as specified” to read “maximum amount as of such completion as specified”;

■ w. In the definition of “Receive or receipt”, by revising the words “official correspondence log” to read “official log”;

■ x. In the definition of “Useful thermal energy”, by revising in paragraph (2) the word “heat” with the word “heating”;

■ y. By adding new definitions of “Hg Budget Trading Program”, “Replacement, replace, or replaced”, and “Solid waste incineration unit” to read as follows:

#### § 96.202 Definitions.

\* \* \* \* \*

*Allocate or allocation* means, with regard to CAIR SO<sub>2</sub> allowances issued under the Acid Rain Program, the determination by the Administrator of

the amount of such CAIR SO<sub>2</sub> allowances to be initially credited to a CAIR SO<sub>2</sub> unit or other entity and, with regard to CAIR SO<sub>2</sub> allowances issued under provisions of a State implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter or § 97.288 of this chapter, the determination by a permitting authority of the amount of such CAIR SO<sub>2</sub> allowances to be initially credited to a CAIR SO<sub>2</sub> unit or other entity.

\* \* \* \* \*

*Commence commercial operation* means, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in § 96.205 and § 96.284(h).

(i) For a unit that is a CAIR SO<sub>2</sub> unit under § 96.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR SO<sub>2</sub> unit under § 96.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit’s date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 96.205, for a unit that is not a CAIR SO<sub>2</sub> unit under § 96.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit’s date for commencement of commercial operation shall be the date on which the unit becomes a CAIR SO<sub>2</sub> unit under § 96.204.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

**Commence operation means:**

(1) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 96.284(h).

(2) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(3) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1), (2), or (3) of this definition as appropriate, except as provided in § 96.284(h).

\* \* \* \* \*

**Hg Budget Trading Program** means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

\* \* \* \* \*

**Maximum design heat input** means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

\* \* \* \* \*

**Replacement, replace, or replaced** means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used

instead of the demolished or shutdown unit (the replaced unit).

\* \* \* \* \*

**Solid waste incineration unit** means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

\* \* \* \* \*

■ 35. Section 96.203 is revised to read as follows:

**§ 96.203 Measurements, abbreviations, and acronyms.**

Measurements, abbreviations, and acronyms used in this subpart and subparts BBB through III are defined as follows:

Btu—British thermal unit  
CO<sub>2</sub>—carbon dioxide  
H<sub>2</sub>O—water  
Hg—mercury  
hr—hour  
kW—kilowatt electrical  
kWh—kilowatt hour  
lb—pound  
mmBtu—million Btu  
MWe—megawatt electrical  
MWh—megawatt hour  
NO<sub>x</sub>—nitrogen oxides  
O<sub>2</sub>—oxygen  
ppm—parts per million  
scfh—standard cubic feet per hour  
SO<sub>2</sub>—sulfur dioxide  
yr—year

■ 36. Section 96.204 is revised to read as follows:

**§ 96.204 Applicability.**

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR SO<sub>2</sub> units, and any source that includes one or more such units shall be a CAIR SO<sub>2</sub> source, subject to the requirements of this subpart and subparts BBB through HHH of this part: any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR SO<sub>2</sub> unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR SO<sub>2</sub> unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this section shall not be CAIR SO<sub>2</sub> units:

(1)(i) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (b)(1)(i) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR SO<sub>2</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive

calendar years, but subsequently no longer meets all such requirements, the unit shall become a CAIR SO<sub>2</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

#### **§ 96.205 [Amended]**

■ 37. Section 96.205 is amended as follows:

- a. In paragraph (a)(1), by revising the words “§ 96.206(c)(4) through (8), § 96.207, and subparts FFF and GGG” to read “§ 96.206(c)(4) through (7), § 96.207, § 96.208, and subparts BBB, FFF, and GGG”;
- b. In paragraph (b)(2), by revising the words “shall retain at the source” to read “shall retain, at the source”; and
- c. In paragraph (b)(6), by revising the words “commences operation and commercial operation” to read “commences commercial operation”.

#### **§ 96.206 [Amended]**

■ 38. Section 96.206 is amended as follows:

- a. In paragraph (a)(1)(i), by revising the words “in § 96.221(a) and (b)” to read “in § 96.221”;
- b. In paragraph (c)(2), by revising the words “under paragraph (c)(1) of this section” with “under paragraph (c)(1) of this section for the control period” and by revising the words “under § 96.270(b)(1), (2), or (5)” to read “under § 96.270(b)(1), (2), or (5) and for each control period thereafter”;
- c. In paragraph (c)(7), by revising the words “from a CAIR SO<sub>2</sub> unit’s compliance account” to read “from a CAIR SO<sub>2</sub> source’s compliance account” and by removing the words “that includes the CAIR SO<sub>2</sub> unit”; and
- d. In paragraph (d)(1), by removing the paragraph designation “(1)” and by redesignating paragraph (i) as paragraph (d)(1); and
- e. By removing paragraph (d)(2) and by redesignating paragraph (ii) as paragraph (d)(2).

#### **§ 96.211 [Amended]**

■ 39. In paragraph (c), by revising the words “96.251 and 96.282” to read “96.215, 96.251, and 96.282”.

#### **§ 96.212 [Amended]**

■ 40. Section 96.212 is amended, in paragraph (c)(1), by revising the words “a new owner” to read “an owner”, by revising the words “such new owner” to read “such owner”, and by revising the words “the new owner” to read “the owner”.

#### **§ 96.213 [Amended]**

■ 41. Section 96.213 is amended as follows:

- a. In paragraph (a)(1), by revising the words “is submitted” to read “is submitted, including identification and nameplate capacity of each generator served by each such unit”; and
  - b. In paragraph (a)(4)(iv), by revising the words “where a customer” to read “where a utility or industrial customer”.
- 42. Add a new section 96.215 to read as follows:

#### **§ 96.215 Delegation by CAIR designated representative and alternate CAIR designated representative.**

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator that includes the following elements:

- (1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;
- (2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person “referred to as an “agent””;
- (3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and
- (4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of

delegation is superseded by another notice of delegation under 40 CFR 96.215(d) shall be deemed to be an electronic submission by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 96.215(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.215 is terminated.”.

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

#### **§ 96.220 [Amended]**

■ 43. Section 96.220 is amended as follows:

- a. In paragraph (a), by revising the words “otherwise by this subpart and” to read “otherwise by § 96.205, this subpart, and”;
- b. In paragraph (b), by replacing the words “CAIR SO<sub>2</sub> units at the source” to read “CAIR SO<sub>2</sub> units at the source covered by the CAIR permit”.

#### **§ 96.221 [Amended]**

■ 44. Section 96.221 is amended as follows:

- a. In paragraph (a), by revising the words “commences operation” to read “commences commercial operation, except as provided in § 96.283(a)” and
- b. In paragraph (b), by revising the words “permit renewal” to read “permit renewal, except as provided in § 96.283(b)”.

■ 45. Section 96.251 is amended as follows:

- a. In paragraph (b)(2) introductory text, by revising the word “representative” to read “representative

or alternate CAIR authorized account representative”;

■ b. In paragraph (b)(3)(iii)(A), by revising the words “a new person” to read “a person”, revise the words “such new person” to read “such person”, and revise the words “the new person” to read “the person”;

■ c. In paragraph (b)(3)(iii)(B), by revising the words “addition of persons” to read “addition of a new person”;

■ d. In paragraph (b)(4) introductory text, by revising the word “representative” to read “representative or alternate CAIR authorized account representative”;

■ e. In paragraphs (b)(4)(ii) and (iii), by revising the words “alternative CAIR” to read “alternate CAIR” whenever they appear; and

■ f. By adding a new paragraph (b)(5) to read as follows:

**§ 96.251 Establishment of accounts.**

\* \* \* \* \*

(b) \* \* \*

(5) *Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.* (i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFF and GGG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFF and GGG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and, facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(C) For each such natural person, a list of the type or types of electronic

submissions under paragraph (b)(5)(i) or (ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 96.251(b)(5)(iv) shall be deemed to be an electronic submission by me.”; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 96.251 (b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.251 (b)(5) is terminated.”

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR submitting such notice of delegation.

\* \* \* \* \*

**§ 96.254 [Amended]**

■ 46. Section 96.254 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “prior year;” to read “prior year; and”;

■ b. In paragraph (a)(2), revising the words “§ 96.260 by the allowance transfer deadline for the control period; and” to read “§§ 96.260 and 96.261 by the allowance transfer deadline for the control period.”;

■ c. Removing paragraph (a)(3);

■ d. In paragraph (b)(1)(ii), by removing the words “available under paragraph (a) of this section and”;

■ d. In paragraphs (c)(2)(ii), (c)(2)(iv), and (c)(2)(vi), by revising the words “to any unit” to read “to any entity”;

■ e. In paragraph (d)(1), by revising the words “3 times the number of tons of the source’s excess emissions” to read “3 times the following amount: the number of tons of the source’s excess emissions minus, if the source is subject to an Acid Rain emissions limitation, the amount of the CAIR SO<sub>2</sub> allowances required to be deducted under paragraph (b)(1)(ii) of this section”;

■ f. In paragraph (e), by revising the words “under paragraph (b) or (d) of this section” to read “under paragraphs (b) and (d) of this section) and subpart III”; and

■ g. In paragraph (f)(2), by revising the words “of this section” to read “of this section, and record such deductions and transfers”.

**§ 96.255 [Amended]**

■ 47. Section 96.255 is amended, in paragraph (b), by revising the words “§ 96.256, or subpart GGG” to read “§ 96.256, or subpart GGG or III”.

**§ 96.257 [Amended]**

■ 48. Section 96.257 is amended, in paragraphs (a) and (b), by revising the words “96.260”; to read “§§ 96.260 and 96.261”.

■ 49. Section 96.261 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “§ 96.260; and” to read “§ 96.260;”;

■ b. In paragraph (a)(2), by revising the words “transfer.” to read “transfer; and”;

■ c. By adding a new paragraph (a)(3) to read as follows:

**§ 96.261 EPA recordation.**

(a) \* \* \*

(3) The transfer is in accordance with the limitation on transfer under § 74.42 of this chapter and § 74.47(c) of this chapter, as applicable.

\* \* \* \* \*

■ 50. Section 96.270 is amended as follows:

■ a. In paragraph (b) introductory text, by revising the words “The owner” to read “Except as provided in paragraph (e) of this section, the owner”;

■ b. In paragraph (b)(5), by revising the words “paragraphs (b)(1) and (2) of this section and solely for purposes of § 96.206(c)(2), for the owner” to read “paragraphs (b)(1) and (2) of this section, for the owner”;

■ c. In paragraph (c)(1), by removing the paragraph designation “(1)” and by revising the words “Except as provided in paragraph (c)(2) of this section, the owner” to read “The owner” and the words “SO<sub>2</sub> concentration, SO<sub>2</sub> emission rate,” to read “SO<sub>2</sub> concentration,”;

■ d. By removing paragraph (c)(2);

■ e. In paragraph (d)(3), by revising the words “the atmosphere” to read “the atmosphere or heat input”; and

■ f. By adding a new paragraph (e) to read as follows:

#### § 96.270 General requirements.

\* \* \* \* \*

(e) *Long-term cold storage.* The owner or operator of a CAIR SO<sub>2</sub> unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

#### § 96.271 [Amended]

■ 51. Section 96.271 is amended by removing and reserving paragraph (c).

#### § 96.273 [Amended]

■ 52. Section 96.273 is amended by removing the words “, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the permitting authority”.

■ 53. Section 96.274 is amended as follows:

■ a. In paragraph (d)(1)(i), by revising the words “2009; or” to read “2009;”;

■ b. In paragraph (d)(1)(ii), by revising the words “2009.” to read “2009;”;

■ c. By adding new paragraphs (d)(1)(iii) and (iv); and

■ d. In paragraph (d)(3), by revising the words “or CAIR NO<sub>x</sub> Ozone Season Trading Program,” to read “, CAIR NO<sub>x</sub> Ozone Season Trading Program, or Hg Budget Trading Program,” and by revising the words “subparts F through H” to read “subparts F through I” and revising to read as follows:

#### § 96.274 Recordkeeping and reporting.

\* \* \* \* \*

(d) \* \* \*  
(1) \* \* \*

(iii) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart III of this part, the calendar quarter corresponding to the date specified in § 96.284(b); and

(iv) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a CAIR SO<sub>2</sub> opt-in unit under subpart III of this part, the calendar quarter corresponding to the date on which the CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program as provided in § 96.284(g).

\* \* \* \* \*

#### § 96.276 [Removed]

■ 54. Section 96.276 is removed.

■ 55. Section 96.283 is amended as follows:

■ a. In paragraph (a)(2)(iii), by revising the words “CAIR opt-in unit” to read “CAIR SO<sub>2</sub> opt-in unit”;

■ b. By revising paragraph (a)(5);

■ c. In paragraph (b)(1), by revising the words “or permitting authority’s” to read “or the permitting authority’s”;

■ d. In paragraph (b)(2), by revising the words “withdrawal of the CAIR opt-in unit” to read “withdrawal of the CAIR SO<sub>2</sub> opt-in unit” and revising to read as follows:

#### § 96.283 Applying for CAIR opt-in permit.

(a) \* \* \*

(5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR SO<sub>2</sub> allowances under § 96.288(b) or § 96.288(c) (subject to the conditions in §§ 96.284(h) and 96.286(g)). If allocation under § 96.288(c) is requested, this statement shall include a statement that the owners and operators of the unit intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

\* \* \* \* \*

#### § 96.284 [Amended]

■ 56. Section 96.284 is amended as follows:

■ a. In paragraph (a), by revising the words “heat input of the unit” to read “heat input of the unit and all other applicable parameters”;

■ b. In paragraph (c)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;

■ c. In paragraph (d)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;

■ d. In paragraph (d)(3), by revising the words “for such control period” with words “for such control periods”;

■ d. In paragraph (f), by revising the words “CAIR SO<sub>2</sub> opt-in permit” to read “CAIR opt-in permit”; and

■ e. In paragraph (h)(2), by revising the words “a CAIR opt-in unit” to read “a CAIR SO<sub>2</sub> opt-in unit”.

■ 57. Section 96.285 is amended as follows:

■ a. In paragraph (a)(5), by revising the words “under § 96.288(c)” to read “§ 96.288(b) or § 96.288(c)”;

■ b. By adding a new paragraph (c) to read as follows:

#### § 96.285 CAIR opt-in permit contents.

\* \* \* \* \*

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR SO<sub>2</sub> opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

#### § 96.286 [Amended]

■ 58. Section 96.286 is amended as follows:

■ a. In paragraph (a), by revising the words “CAIR opt-in unit” to read “CAIR SO<sub>2</sub> opt-in unit”; and

■ b. In paragraph (b)(2), by revising the words “equal in number to” to read “equal in amount to” and by revising the words “§ 96.188” to read “§ 96.288”.

#### § 96.287 [Amended]

■ 59. Section 96.287 is amended as follows:

■ a. In paragraph (b)(1), by revising the words “under § 96.223” to read “under § 96.223, and remove the CAIR opt-in permit provisions,”;

■ b. In paragraph (b)(2)(i), by revising the words “equal in number to” to read “equal in amount to”; and

■ c. By removing paragraph (b)(3).

#### § 96.288 CAIR SO<sub>2</sub> allowance allocations to CAIR SO<sub>2</sub> opt-in units.

■ 60. Section 96.288 is amended as follows:

■ a. By revising the heading of the section as set forth above;

■ b. In paragraph (a)(2), by revising the words “of the control period in which a CAIR opt-in unit” to read “of the control period after the control period in which a CAIR SO<sub>2</sub> opt-in unit”;

■ c. In paragraph (c), by revising the words “issues a CAIR opt-in permit” to read “issues a CAIR opt-in permit (based on a demonstration of the intent to repower stated under § 96.283(a)(5))”; and

■ d. In paragraph (d)(2), by revising the words “CAIR opt-in unit” to read “CAIR SO<sub>2</sub> opt-in unit”.

■ 61. Section 96.302 is amended as follows:



- a. By revising the definition of "Allocate or allocation";
- b. In the definition of "Allowance transfer deadline", by revising the words "midnight of November 30, if it is a business day, or, if November 30 is not a business day, midnight of the first business day thereafter" to read "midnight of November 30 (if it is a business day), or midnight of the first business day thereafter (if November 30 is not a business day),";
- c. In the definition of "Alternate CAIR designated representative", by adding at the end the words "If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program."
- d. In the definition of "CAIR authorized account representative", by revising the words "subparts BBBB and IIII" to read "subparts BBBB, FFFF, and IIII";
- e. In the definition of "CAIR designated representative", by adding at the end the words "If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program."
- f. In the definition of "CAIR NO<sub>x</sub> Annual Trading Program", by revising the words "§ 51.123 of this chapter," to read "§ 51.123 of this chapter or established by the Administrator in accordance with subparts AA through II of part 97 of this chapter and §§ 51.123(p) and 52.35 of this chapter,";
- g. Revising the definition of "CAIR NO<sub>x</sub> Ozone Season allowance";
- h. In the definition of "CAIR NO<sub>x</sub> Ozone Season allowance deduction or deduct CAIR NO<sub>x</sub> Ozone Season allowances", by adding, after the words "compliance account", the words " , e.g.,";
- i. In the definition of "CAIR NO<sub>x</sub> Ozone Season emissions limitation", by revising the words "tonnage equivalent of" to read "tonnage equivalent, in NO<sub>x</sub> emissions in a control period, of" and by revising the words "for a control period" to read "for the control period";
- j. In the definition of "CAIR NO<sub>x</sub> Ozone Season Trading Program", by revising the words "§ 51.123 of this chapter," to read "§ 51.123 of this chapter or established by the Administrator in accordance with subparts AAAA through IIII of part 97 of this chapter and §§ 51.123(ee) and 52.35 of this chapter,";
- k. In the definition of "CAIR NO<sub>x</sub> source", by revising the words

"includes one or more CAIR NO<sub>x</sub> units" to read "is subject to the CAIR NO<sub>x</sub> Annual Trading Program";

- l. By removing the definition of "CAIR NO<sub>x</sub> unit";

■ m. In the definition of "CAIR SO<sub>2</sub> source", by revising the words "includes one or more CAIR SO<sub>2</sub> units" to read "is subject to the CAIR SO<sub>2</sub> Trading Program";

■ n. In the definition of "CAIR SO<sub>2</sub> Trading Program", by revising the words "§ 51.124 of this chapter," to read "§ 51.124 of this chapter or established by the Administrator in accordance with subparts AAA through III of part 97 of this chapter and §§ 51.124(r) and 52.36 of this chapter,";

- o. By removing the definition of "CAIR SO<sub>2</sub> unit";

■ p. In paragraph (2) of the definition of "Cogeneration unit", by revising the words "calendar year after which" to read "calendar year after the calendar year in which";

■ q. In the definition of "Combustion turbine", by revising the words "any associated heat recovery steam generator" to read "any associated duct burner, heat recovery steam generator,";

- r. By revising the definition of "Commence commercial operation";

■ s. By revising the definition of "Commence operation";

■ t. In the definition of "Control period", by revising the words "May 1 of a calendar year and" to read "May 1 of a calendar year, except as provided in § 96.306(c)(2), and";

- u. By revising the definition of "Maximum design heat input";

■ v. In the definition of "Nameplate capacity", by revising the words "other deratings) as specified" to read "other deratings) as of such installation as specified" and by revising the words "maximum amount as specified" to read "maximum amount as of such completion as specified";

■ w. In the definition of "Oil-fired", by revising the words "in a specified year." to read "in a specified year and not qualifying as coal-fired.";

■ x. In the definition of "Receive or receipt", by revising the words "official correspondence log" to read "official log";

■ y. In the definition of "Useful thermal energy", by revising in paragraph (2) the word "heat" with the word "heating"; and

■ z. By adding new definitions of "Hg Budget Trading Program", "Replacement, replace, or replaced", and "Solid waste incineration unit" and revising to read as follows:

#### § 96.302 Definitions.

\* \* \* \* \*

*Allocate or allocation means*, with regard to CAIR NO<sub>x</sub> Ozone Season allowances, the determination by a permitting authority or the Administrator of the amount of such CAIR NO<sub>x</sub> Ozone Season allowances to be initially credited to a CAIR NO<sub>x</sub> Ozone Season unit, a new unit set-aside, or other entity.

\* \* \* \* \*

*CAIR NO<sub>x</sub> Ozone Season allowance* means a limited authorization issued by a permitting authority or the Administrator under provisions of a State implementation plan that are approved under § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd), or (ee) of this chapter, or under subpart EEEE of part 97 or § 97.388 of this chapter, to emit one ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NO<sub>x</sub> Ozone Season Trading Program or a limited authorization issued by a permitting authority for a control period during 2003 through 2008 under the NO<sub>x</sub> Budget Trading Program in accordance with § 51.121(p) of this chapter to emit one ton of nitrogen oxides during a control period, provided that the provision in § 51.121(b)(2)(ii)(E) of this chapter shall not be used in applying this definition and the limited authorization shall not have been used to meet the allowance-holding requirement under the NO<sub>x</sub> Budget Trading Program. An authorization to emit nitrogen oxides that is not issued under provisions of a State implementation plan approved under § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd), or (ee) of this chapter or subpart EEEE of part 97 or § 97.388 of this chapter or under the NO<sub>x</sub> Budget Trading Program as described in the prior sentence shall not be a CAIR NO<sub>x</sub> Ozone Season allowance.

\* \* \* \* \*

*Commence commercial operation* means, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in § 96.305 and § 96.384(h).

(i) For a unit that is a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial

operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR NO<sub>x</sub> Ozone Season unit under § 96.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 96.305, for a unit that is not a CAIR NO<sub>x</sub> Ozone Season unit under § 96.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 96.304.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

*Commence operation* means:

(1) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 96.384(h).

(2) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(3) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1), (2), or (3) of this definition as appropriate, except as provided in § 96.384(h).

\* \* \* \* \*

*Hg Budget Trading Program* means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

\* \* \* \* \*

*Maximum design heat input* means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

\* \* \* \* \*

*Replacement, replace, or replaced* means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

\* \* \* \* \*

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

\* \* \* \* \*

■ 62. Section 96.303 is revised to read as follows:

**§ 96.303 Measurements, abbreviations, and acronyms.**

Measurements, abbreviations, and acronyms used in this subpart and subparts BBBB through IIII are defined as follows:

Btu—British thermal unit  
CO<sub>2</sub>—carbon dioxide  
H<sub>2</sub>O—water  
Hg—mercury  
hr—hour  
kW—kilowatt electrical  
kWh—kilowatt hour  
lb—pound  
mmBtu—million Btu  
MWe—megawatt electrical

MWh—megawatt hour  
NO<sub>x</sub>—nitrogen oxides  
O<sub>2</sub>—oxygen  
ppm—parts per million  
scfh—standard cubic feet per hour  
SO<sub>2</sub>—sulfur dioxide  
yr—year

■ 63. Section 96.304 is revised to read as follows:

**§ 96.304 Applicability.**

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR NO<sub>x</sub> Ozone Season units, and any source that includes one or more such units shall be a CAIR NO<sub>x</sub> Ozone Season source, subject to the requirements of this subpart and subparts BBBB through HHHH of this part: Any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR NO<sub>x</sub> Ozone Season unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR NO<sub>x</sub> Ozone Season unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this section shall not be CAIR NO<sub>x</sub> Ozone Season units:

(1)(i) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (b)(1)(i) of this section for

at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> Ozone Season unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> Ozone Season unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

#### § 96.305 [Amended]

■ 64. Section 96.305 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “CAIR NO<sub>x</sub> Ozone Season opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart III of this part” and by revising the words “§ 96.306(c)(4) through (8), § 96.307, and subparts EEEE through GGGG” to read “§ 96.306(c)(4) through (7), § 96.307, § 96.308, and subparts BBBB and EEEE through GGGG”;

■ b. In paragraph (b)(3), by revising the words “shall retain at the source” to read “shall retain, at the source”; and

■ c. In paragraph (b)(7), by revising the words “commences operation and commercial operation” to read “commences commercial operation”.

#### § 96.306 [Amended]

■ 65. Section 96.306 is amended as follows:

■ a. In paragraph (a)(1)(i), by revising the words “in § 96.321(a) and (b)” to read “in § 96.321”;

■ b. In paragraph (c)(2), by revising the words “under paragraph (c)(1) of this section” with “under paragraph (c)(1) of this section for the control period” and by revising the words “under § 96.370(b)(1), (2), (3), or (7)” to read “under § 96.370(b)(1), (2), (3), or (7) and for each control period thereafter”;

■ c. In paragraph (c)(4), by revising the words “subpart EEEE” to read “subparts FFFF, GGGG, and IIII”;

■ d. In paragraph (c)(7), by revising the words “from a CAIR NO<sub>x</sub> Ozone Season unit’s compliance account” to read “from a CAIR NO<sub>x</sub> Ozone Season source’s compliance account”, and by removing the words “that includes the CAIR NO<sub>x</sub> Ozone Season unit”; and

■ e. In paragraph (d)(1), by removing the paragraph designation “(1)” and by redesignating paragraph (i) as paragraph (d)(1); and

■ f. By removing paragraph (d)(2) and by redesignating paragraph (ii) as paragraph (d)(2).

#### § 96.311 [Amended]

■ 66. In paragraph (c), by revising the words “96.351 and 96.382” to read “96.315, 96.351, and 96.382”.

#### § 96.312 [Amended]

■ 67. Section 96.312 is amended, in paragraph (c)(1), by revising the words “a new owner” to read “an owner”, by revising the words “such new owner” to read “such owner”, and by revising the words “the new owner” to read “the owner”.

#### § 96.313 Amended]

■ 68. Section 96.313 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “is submitted” to read “is submitted, including identification and nameplate capacity of each generator served by each such unit”; and

■ b. In paragraph (a)(4)(iv), by revising the words “where a customer” to read “where a utility or industrial customer”.

■ 69. A new section 96.315 is added to read as follows:

#### § 96.315 Delegation by CAIR designated representative and alternate CAIR designated representative.

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 96.315(d) shall be deemed to be an electronic submission by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 96.315(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.315 is terminated.”.

(d) A notice of delegation submitted under paragraph (c) of this section shall

be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

#### **§ 96.320 [Amended]**

■ 70. Section 96.320 is amended, in paragraph (a), by revising the words “otherwise by this subpart and” to read “otherwise by § 96.305, this subpart, and”.

#### **§ 96.321 [Amended]**

■ 71. Section 96.321 is amended as follows:

- a. In paragraph (a), by revising the words “commences operation” to read “commences commercial operation, except as provided in § 96.383(a)”; and
- b. In paragraph (b), by revising the words to read “permit renewal”, to read “permit renewal, except as provided in § 96.383(b)”.

#### **§ 96.341 [Amended]**

■ 72. Section 96.341 is amended as follows:

- a. In paragraph (b)(1), removing the paragraph designation “(1)”;
- b. By removing paragraph (b)(2);
- c. In paragraph (c)(1), removing the paragraph designation “(1)”; and
- d. By removing paragraph (c)(2).

■ 73. Section 96.342 is amended as follows:

- a. In paragraph (a)(2)(i), by revising the words “during a calendar year” to read “during a control period in a calendar year”;
- b. In paragraph (a)(2)(iii)(C), by revising the words “3,414 Btu/kWh” to read “3,413 Btu/kWh”;
- c. By revising paragraph (c) introductory text;
- d. In paragraph (c)(1), by revising the words “2009 through 2013” to read “2009 through 2014” and revise the words “in 2014” to read “in 2015”;

■ e. In paragraph (c)(2), by revising the words “The CAIR NO<sub>x</sub> Ozone Season allowance allocation request must be submitted on or before April 1 of the first control period for which CAIR NO<sub>x</sub> Ozone Season allowances are requested” to read “A separate CAIR NO<sub>x</sub> Ozone Season allowance allocation request for each control period for which CAIR NO<sub>x</sub> allowances are sought must be submitted on or before February 1 of such control period”; and

■ f. In paragraph (c)(4)(ii), by revising the words “On or after April 1” to read “On or after February 1” and revising to read as follows:

#### **§ 96.342 CAIR NO<sub>x</sub> Ozone Season allowance allocations.**

\* \* \* \* \*

(c) For each control period in 2009 and thereafter, the permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to CAIR NO<sub>x</sub> Ozone Season units in a State that are not allocated CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (b) of this section because the units do not yet have a baseline heat input under paragraph (a) of this section or because the units have a baseline heat input but all CAIR NO<sub>x</sub> Ozone Season allowances available under paragraph (b) of this section for the control period are already allocated, in accordance with the following procedures:

\* \* \* \* \*

■ 74. Section 96.351 is amended as follows:

- a. In paragraph (b)(2) introductory text, by revising the word “representative” to read “representative or alternate CAIR authorized account representative”;
- b. In paragraph (b)(3)(iii)(A), by revising the words “a new person” to read “a person”, by revising the words “such new person” to read “such person”, and by revising the words “the new person” to read “the person”;
- c. In paragraph (b)(3)(iii)(B), by revising the words “addition of persons” to read “addition of a new person”;
- d. In paragraph (b)(4) introductory text, by revising the word “representative” to read “representative or alternate CAIR authorized account representative”;
- e. In paragraphs (b)(4)(ii) and (iii), by revising the words “alternative CAIR” to read “alternate CAIR” whenever they appear; and
- f. By adding a new paragraph (b)(5) to read as follows:

#### **§ 96.351 Establishment of accounts.**

\* \* \* \* \*

(b) \* \* \*

(5) *Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.* (i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFFF and GGGG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFFF and GGGG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and, facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(C) For each such natural person, a list of the type or types of electronic submissions under paragraph (b)(5)(i) or (ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 96.351(b)(5)(iv) shall be deemed to be an electronic submission by me.”; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: “Until this notice of delegation is superseded by another notice of delegation under 40 CFR

96.351(b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 96.351(b)(5) is terminated.”.

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

\* \* \* \* \*

■ 75. Section 96.353 is amended as follows:

■ a. In paragraph (a), by revising the words “By December 1, 2006,” to read “By September 30, 2007,” and revising the words “at a source” to read “at the source”;

■ b. In paragraphs (b) and (d), by removing the words “or as determined by the Administrator”; and

■ c. By revising paragraph (c) to read as follows:

**§ 96.353 Recordation of CAIR NO<sub>x</sub> Ozone Season allowance allocations.**

\* \* \* \* \*

(c) By December 1, 2010 and December 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season source’s compliance account the CAIR NO<sub>x</sub> Ozone Season allowances allocated for the CAIR NO<sub>x</sub> Ozone Season units at the source, as submitted by the permitting authority in accordance with § 96.341(b), for the control period in the sixth year after the year of the applicable deadline for recordation under this paragraph.

\* \* \* \* \*

**§ 96.354 [Amended]**

■ 76. Section 96.354 is amended as follows:

■ a. In paragraph (a)(1), by revising the words “prior year;” to read “prior year; and”;

■ b. In paragraph (a)(2), revising the words “§ 96.360 by the allowance transfer deadline for the control period; and” to read “§§ 96.360 and 96.361 by the allowance transfer deadline for the control period.”;

■ c. Removing paragraph (a)(3);

■ d. In paragraph (c)(2)(ii), by revising the words “to any unit” to read “to any entity”;

■ e. In paragraph (e), by revising the words “under paragraph (b) or (d) of this section” to read “under paragraphs (b) and (d) of this section and subpart IIII”; and

■ f. In paragraph (f)(2), by revising the words “of this section” to read “of this section, and record such deductions and transfers”.

**§ 96.355 [Amended]**

■ 77. Section 96.355 is amended, in paragraph (b), by revising the words “§ 96.356, or subpart GGGG” to read “§ 96.356, or subpart GGGG or IIII”.

**§ 96.357 [Amended]**

■ 78. Section 96.357 is amended, in paragraphs (a) and (b), by revising the words “§ 96.360” to read “§§ 96.360 and 96.361”.

■ 79. Section 96.370 is amended as follows:

■ a. In paragraph (b) introductory text, by revising the words “The owner” to read “Except as provided in paragraph (e) of this section, the owner”;

■ b. In paragraph (b)(2)(ii), by removing the words “, if the compliance date under paragraph (b)(2)(i) is before May 1, 2008”;

■ c. In paragraph (b)(3) introductory text, by revising the words “commences operation” to read “commences commercial operation”;

■ d. In paragraph (b)(7), by revising the words “paragraphs (b)(1), (2), and (3) of this section and solely for purposes of § 96.206(c)(2), for the owner” to read “paragraphs (b)(1), (2), and (3) of this section, for the owner” and by revising the words “CAIR NO<sub>x</sub> Ozone Season opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part”;

■ e. In paragraph (c)(1), by removing the paragraph designation “(1)” and by revising the words “Except as provided in paragraph (c)(2) of this section, the owner” to read “The owner”;

■ f. By removing paragraph (c)(2);

■ g. In paragraph (d)(3), by revising the words “the atmosphere” to read “the atmosphere or heat input”; and

■ h. By adding a new paragraph (e) to read as follows:

**§ 96.370 General Requirements.**

\* \* \* \* \*

(e) *Long-term cold storage.* The owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

**§ 96.371 [Amended]**

■ 80. Section 96.371 is amended, in paragraph (c), by revising the words “§ 75.12, § 75.17, or subpart H of part 75” to read “§ 75.12 or § 75.17”.

**§ 96.373 [Amended]**

■ 81. Section 96.373 is amended by removing the words “, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the permitting authority”.

■ 82. Section 96.374 is amended as follows:

■ a. In paragraph (d)(1)(i), by revising the words “2008; or” to read “2008;”;

■ b. In paragraph (d)(1)(ii), by revising the words “2008.” to read “2008;” and by revising the words “fourth quarter of 2007” to read “fourth quarter of 2007 or the first quarter of 2008”;

■ c. In paragraph (d)(2)(ii)(B), by revising the words “such date.” to read “such date;” and

■ d. By adding new paragraphs (d)(1)(iii) and (iv) and (d)(2)(ii)(C) and (D);

■ e. By renumbering the second paragraph (d)(2) and the second paragraph (d)(3) as paragraphs (d)(3) and (d)(4) respectively and, in paragraph (d)(4), by revising the words “or CAIR SO<sub>2</sub> Trading Program,” to read “, CAIR SO<sub>2</sub> Trading Program, or Hg Budget Trading Program,” and by revising the words “subparts F through H” to read “subparts F through I” and revising to read as follows:

**§ 96.374 Recordkeeping and reporting.**

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(iii) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, the calendar quarter corresponding to the date specified in § 96.384(b); and

(iv) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub>

Ozone Season Trading Program as provided in § 96.384(g).

(2) \* \* \*  
(ii) \* \* \*

(C) Notwithstanding paragraphs (d)(2)(ii)(A) and (2)(ii)(B) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, the calendar quarter corresponding to the date specified in § 96.384(b); and

(D) Notwithstanding paragraphs (d)(2)(ii)(A) and (2)(ii)(B) of this section, for a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program as provided in § 96.384(g).

\* \* \* \* \*

#### § 96.376 [Removed]

■ 83. Section 96.376 is removed.

■ 84. Section 96.383 is amended as follows:

■ a. By revising paragraph (a)(5); and  
■ b. In paragraph (b)(2), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit”, by revising the words “Annual Trading Program” to read “Ozone Season Trading Program”, by revising the words “CAIR NO<sub>x</sub> unit” to read “CAIR NO<sub>x</sub> Ozone Season unit”, and by revising the words “CAIR NO<sub>x</sub> opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit” whenever they appear and revising to read as follows:

#### § 96.383 Applying for CAIR opt-in permit.

(a) \* \* \*

(5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR NO<sub>x</sub> Ozone Season allowances under § 96.388(b) or § 96.388(c) (subject to the conditions in §§ 96.384(h) and 96.386(g)). If allocation under § 96.388(c) is requested, this statement shall include a statement that the owners and operators of the unit intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

\* \* \* \* \*

#### § 96.384 [Amended]

■ 85. Section 96.384 is amended as follows:

■ a. In paragraph (b), by revising the words “heat input of the unit emissions rate and the heat input of the unit” to read “heat input of the unit”;

■ b. In paragraph (c)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and for the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;

■ c. In paragraph (d)(2), by revising the words “for the control period under paragraph (b)(1)(ii) of this section and the control periods under paragraph (b)(2) of this section” to read “for the control periods under paragraphs (b)(1)(ii) and (2) of this section”;

■ d. In paragraph (d)(3), by revising the words “for such control period” to read “for such control periods”;

■ e. In paragraph (h)(2), revising the words “a CAIR opt-in unit” to read “a CAIR NO<sub>x</sub> Ozone Season opt-in unit.”

■ 86. Section 96.385 is amended as follows:

■ a. In paragraph (a)(5), by revising the words “under § 96.388(c)” to read “§ 96.388(b) or § 96.388(c)”;

■ b. By adding a new paragraph (c) to read as follows:

#### § 96.385 CAIR opt-in permit contents.

\* \* \* \* \*

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR NO<sub>x</sub> Ozone Season opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

#### § 96.386 [Amended]

■ 87. Section 96.386 is amended as follows:

■ a. In paragraph (a), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-on unit”;

■ b. In paragraph (b)(2), by replacing the words “equal in number to” to read “equal in amount to”; and

■ c. In paragraphs (c)(2) and (g), by revising the words “CAIR NO<sub>x</sub> opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit”.

■ 88. Section 96.387 is amended as follows:

■ a. In paragraph (b)(1), by revising the words “under § 96.323” to read “under § 96.323, and remove the CAIR opt-in permit provisions.”;

■ b. In paragraph (b)(2)(i), by revising the words “equal in number to” to read “equal in amount to”;

■ c. By revising paragraph (b)(3)(i);

■ d. In paragraph (b)(3)(ii), by revising the words “Notwithstanding paragraph (b)(3)(i) of this section if,” to read “If”, by revising the words “May 1” to read “September 30”, and by revising the words “number of CAIR NO<sub>x</sub> Ozone Season allowances” to read “amount of

CAIR NO<sub>x</sub> Ozone Season allowances”; and

■ e. In paragraph (b)(3)(ii)(A), by revising the words “number of CAIR NO<sub>x</sub> Ozone Season allowances” to read “amount of CAIR NO<sub>x</sub> Ozone Season allowances” and revising to read as follows:

#### § 96.387 Change in regulatory status.

\* \* \* \* \*

(b) \* \* \*

(3)(i) For every control period after the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 96.304, the CAIR NO<sub>x</sub> Ozone Season opt-in unit will be allocated CAIR NO<sub>x</sub> Ozone Season allowances under § 96.342.

\* \* \* \* \*

#### § 96.388 CAIR NO<sub>x</sub> Ozone Season allowance allocations to CAIR NO<sub>x</sub> Ozone Season opt-in units.

■ 89. Section 96.388 is amended as follows:

■ a. By revising the heading of the section as set forth above;

■ b. In paragraph (a)(2), by revising the words “of the control period in which” to read “of the control period after the control period in which”, by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit”, and by revising the words “CAIR NO<sub>x</sub> opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit”;

■ c. In paragraph (c), by revising the words “issues a CAIR opt-in permit” to read “issues a CAIR opt-in permit” (based on a demonstration of the intent to repower stated under § 96.383(a)(5)); and

■ d. In paragraph (d)(2), by revising the words “CAIR opt-in unit” to read “CAIR NO<sub>x</sub> Ozone Season opt-in unit.”

### PART 97—FEDERAL NO<sub>x</sub> BUDGET TRADING PROGRAM AND CAIR NO<sub>x</sub> AND SO<sub>2</sub> TRADING PROGRAMS

■ 1. The heading of part 97 is revised to read as set forth above.

■ 2. The authority citation for part 97 is revised to read as follows:

**Authority:** 42 U.S.C. 7401, 7403, 7410, 7426, 7601, and 7651, *et seq.*

■ 3. Part 97 is amended by adding subparts AA through II, to read as follows:

#### Subpart AA—CAIR NO<sub>x</sub> Annual Trading Program General Provisions

Sec.

97.101 Purpose.

97.102 Definitions.

97.103 Measurements, abbreviations, and acronyms.

97.104 Applicability.

97.105 Retired unit exemption.

- 97.106 Standard requirements.
- 97.107 Computation of time.
- 97.108 Appeal procedures.

#### **Subpart BB—CAIR Designated Representative for CAIR NO<sub>x</sub> Sources**

- 97.110 Authorization and responsibilities of CAIR designated representative.
- 97.111 Alternate CAIR designated representative.
- 97.112 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.
- 97.113 Certificate of representation.
- 97.114 Objections concerning CAIR designated representative.
- 97.115 Delegation by CAIR designated representative and alternate CAIR designated representative.

#### **Subpart CC—Permits**

- 97.120 General CAIR NO<sub>x</sub> Annual Trading Program permit requirements.
- 97.121 Submission of CAIR permit applications.
- 97.122 Information requirements for CAIR permit applications.
- 97.123 CAIR permit contents and term.
- 97.124 CAIR permit revisions.

#### **Subpart DD—[Reserved]**

#### **Subpart EE—CAIR NO<sub>x</sub> Allowance Allocations**

- 97.140 State trading budgets.
- 97.141 Timing requirements for CAIR NO<sub>x</sub> allowance allocations.
- 97.142 CAIR NO<sub>x</sub> allowance allocations.
- 97.143 Compliance supplement pool.
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#### **Appendix A to Subpart II of Part 97—States With Approved State Implementation Plan Revisions Concerning CAIR NO<sub>x</sub> Opt-in Units**

#### **Subpart AA—CAIR NO<sub>x</sub> Annual Trading Program General Provisions**

##### **§ 97.101 Purpose.**

This subpart and subparts BB through II set forth the general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the Federal Clean Air Interstate Rule (CAIR) NO<sub>x</sub> Annual Trading Program, under section 110 of the Clean Air Act and § 52.35 of this chapter, as a means of mitigating interstate transport of fine particulates and nitrogen oxides.

##### **§ 97.102 Definitions.**

The terms used in this subpart and subparts BB through II shall have the meanings set forth in this section as follows:

*Account number* means the identification number given by the Administrator to each CAIR NO<sub>x</sub> Allowance Tracking System account.

*Acid Rain emissions limitation* means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.

*Acid Rain Program* means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and parts 72 through 78 of this chapter.

*Actual weighted average NO<sub>x</sub> emission rate* means, for a NO<sub>x</sub> averaging plan under § 76.11 of this chapter and for a year:

- (1) The sum of the products of the actual annual average NO<sub>x</sub> emission rate and actual annual heat input (as determined in accordance with part 75 of this chapter) for all units in the NO<sub>x</sub> averaging plan for the year; divided by
- (2) The sum of the actual annual heat input (as determined in accordance with part 75 of this chapter) for all units in the NO<sub>x</sub> averaging plan for the year.

*Administrator* means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.

*Allocate or allocation* means, with regard to CAIR NO<sub>x</sub> allowances, the determination by a permitting authority or the Administrator of the amount of such CAIR NO<sub>x</sub> allowances to be initially credited to a CAIR NO<sub>x</sub> unit, a new unit set-aside, or other entity.

*Allowance transfer deadline* means, for a control period, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately following the control period and is the deadline by which a CAIR NO<sub>x</sub> allowance transfer must be submitted for recordation in a CAIR NO<sub>x</sub> source's compliance account in order to be used to meet the source's CAIR NO<sub>x</sub> emissions limitation for such control period in accordance with § 97.154.

*Alternate CAIR designated representative* means, for a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source in accordance with subparts BB and II of this part, to act on behalf of the CAIR designated representative in matters pertaining to the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR NO<sub>x</sub> source is also a CAIR SO<sub>2</sub> source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR SO<sub>2</sub> Trading Program. If the CAIR NO<sub>x</sub> source is also a CAIR NO<sub>x</sub> Ozone Season source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR NO<sub>x</sub> source is also subject to the Acid Rain Program, then this natural person shall be the same person as the alternate designated representative under the Acid Rain Program. If the CAIR NO<sub>x</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program.

*Automated data acquisition and handling system or DAHS* means that component of the continuous emission monitoring system, or other emissions monitoring system approved for use under subpart HH of this part, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by subpart HH of this part.



*Boiler* means an enclosed fossil- or other-fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

*Bottoming-cycle cogeneration unit* means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

*CAIR authorized account representative* means, with regard to a general account, a responsible natural person who is authorized, in accordance with subparts BB, FF, and II of this part, to transfer and otherwise dispose of CAIR NO<sub>x</sub> allowances held in the general account and, with regard to a compliance account, the CAIR designated representative of the source.

*CAIR designated representative* means, for a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source, in accordance with subparts BB and II of this part, to represent and legally bind each owner and operator in matters pertaining to the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR NO<sub>x</sub> source is also a CAIR SO<sub>2</sub> source, then this natural person shall be the same person as the CAIR designated representative under the CAIR SO<sub>2</sub> Trading Program. If the CAIR NO<sub>x</sub> source is also a CAIR NO<sub>x</sub> Ozone Season source, then this natural person shall be the same person as the CAIR designated representative under the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR NO<sub>x</sub> source is also subject to the Acid Rain Program, then this natural person shall be the same person as the designated representative under the Acid Rain Program. If the CAIR NO<sub>x</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program.

*CAIR NO<sub>x</sub> allowance* means a limited authorization issued by a permitting authority or the Administrator under subpart EE of this part or § 97.188, or under provisions of a State implementation plan that are approved under § 51.123(o)(1) or (2) or (p) of this chapter, to emit one ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NO<sub>x</sub> Program. An authorization to emit nitrogen oxides that is not issued under subpart EE of this part, § 97.188, or provisions of a State implementation

plan that are approved under § 51.123(o)(1) or (2) or (p) of this chapter shall not be a CAIR NO<sub>x</sub> allowance.

*CAIR NO<sub>x</sub> allowance deduction or deduct CAIR NO<sub>x</sub> allowances* means the permanent withdrawal of CAIR NO<sub>x</sub> allowances by the Administrator from a compliance account, e.g., in order to account for a specified number of tons of total nitrogen oxides emissions from all CAIR NO<sub>x</sub> units at a CAIR NO<sub>x</sub> source for a control period, determined in accordance with subpart HH of this part, or to account for excess emissions.

*CAIR NO<sub>x</sub> Allowance Tracking System* means the system by which the Administrator records allocations, deductions, and transfers of CAIR NO<sub>x</sub> allowances under the CAIR NO<sub>x</sub> Annual Trading Program. Such allowances will be allocated, held, deducted, or transferred only as whole allowances.

*CAIR NO<sub>x</sub> Allowance Tracking System account* means an account in the CAIR NO<sub>x</sub> Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of CAIR NO<sub>x</sub> allowances.

*CAIR NO<sub>x</sub> allowances held or hold CAIR NO<sub>x</sub> allowances* means the CAIR NO<sub>x</sub> allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with subparts FF, GG, and II of this part, in a CAIR NO<sub>x</sub> Allowance Tracking System account.

*CAIR NO<sub>x</sub> Annual Trading Program* means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AA through II of this part and §§ 51.123(p) and 52.35 of this chapter or approved and administered by the Administrator in accordance with subparts AA through II of part 96 of this chapter and § 51.123(o)(1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and nitrogen oxides.

*CAIR NO<sub>x</sub> emissions limitation* means, for a CAIR NO<sub>x</sub> source, the tonnage equivalent, in NO<sub>x</sub> emissions in a control period, of the CAIR NO<sub>x</sub> allowances available for deduction for the source under § 97.154(a) and (b) for the control period.

*CAIR NO<sub>x</sub> Ozone Season source* means a source that is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program.

*CAIR NO<sub>x</sub> Ozone Season Trading Program* means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AAAA through IIII of this part and §§ 51.123(ee) and 52.35 of this

chapter or approved and administered by the Administrator in accordance with under subparts AAAA through IIII and § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), or (dd) of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides.

*CAIR NO<sub>x</sub> source* means a source that includes one or more CAIR NO<sub>x</sub> units.

*CAIR NO<sub>x</sub> unit* means a unit that is subject to the CAIR NO<sub>x</sub> Annual Trading Program under § 97.104 and, except for purposes of § 97.105 and subpart EE of this part, a CAIR NO<sub>x</sub> opt-in unit under subpart II of this part.

*CAIR permit* means the legally binding and federally enforceable written document, or portion of such document, issued by the permitting authority under subpart CC of this part, including any permit revisions, specifying the CAIR NO<sub>x</sub> Annual Trading Program requirements applicable to a CAIR NO<sub>x</sub> source, to each CAIR NO<sub>x</sub> unit at the source, and to the owners and operators and the CAIR designated representative of the source and each such unit.

*CAIR SO<sub>2</sub> source* means a source that is subject to the CAIR SO<sub>2</sub> Trading Program.

*CAIR SO<sub>2</sub> Trading Program* means a multi-state sulfur dioxide air pollution control and emission reduction program established by the Administrator in accordance with subparts AAA through III of this part and §§ 51.124(r) and 52.36 of this chapter or approved and administered by the Administrator in accordance with subparts AAA through III of part 96 of this chapter and § 51.124(o)(1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

*Certifying official* means:

(1) For a corporation, a president, secretary, treasurer, or vice-president or the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation;

(2) For a partnership or sole proprietorship, a general partner or the proprietor respectively; or

(3) For a local government entity or State, Federal, or other public agency, a principal executive officer or ranking elected official.

*Clean Air Act* or *CAA* means the Clean Air Act, 42 U.S.C. 7401, *et seq.*

*Coal* means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite.

*Coal-derived fuel* means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

*Coal-fired* means:

(1) Except for purposes of subpart EE of this part, combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year; or

(2) For purposes of subpart EE of this part, combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during a specified year.

*Cogeneration unit* means 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.

*Combustion turbine* means:

(1) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(2) If the enclosed device under paragraph (1) of this definition is combined cycle, any associated duct burner, heat recovery steam generator, and steam turbine.

*Commence commercial operation* means, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in § 97.105 and § 97.184(h).

(i) For a unit that is a CAIR NO<sub>x</sub> unit under § 97.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial

operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR NO<sub>x</sub> unit under § 97.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 97.105, for a unit that is not a CAIR NO<sub>x</sub> unit under § 97.104 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> unit under § 97.104.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

*Commence operation* means:

(1) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 97.184(h).

(2) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(3) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1), (2), or (3) of this definition as appropriate, except as provided in § 97.184(h).

*Common stack* means a single flue through which emissions from 2 or more units are exhausted.

*Compliance account* means a CAIR NO<sub>x</sub> Allowance Tracking System account, established by the Administrator for a CAIR NO<sub>x</sub> source under subpart FF or II of this part, in which any CAIR NO<sub>x</sub> allowance allocations for the CAIR NO<sub>x</sub> units at the source are initially recorded and in which are held any CAIR NO<sub>x</sub> allowances available for use for a control period in order to meet the source's CAIR NO<sub>x</sub> emissions limitation in accordance with § 97.154.

*Continuous emission monitoring system* or *CEMS* means the equipment required under subpart HH of this part to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of nitrogen oxides emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with part 75 of this chapter. The following systems are the principal types of continuous emission monitoring systems required under subpart HH of this part:

(1) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in standard cubic feet per hour (scfh);

(2) A nitrogen oxides concentration monitoring system, consisting of a NO<sub>x</sub> pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of NO<sub>x</sub> emissions, in parts per million (ppm);

(3) A nitrogen oxides emission rate (or NO<sub>x</sub>-diluent) monitoring system, consisting of a NO<sub>x</sub> pollutant concentration monitor, a diluent gas (CO<sub>2</sub> or O<sub>2</sub>) monitor, and an automated data acquisition and handling system and providing a permanent, continuous record of NO<sub>x</sub> concentration, in parts per million (ppm), diluent gas

concentration, in percent CO<sub>2</sub> or O<sub>2</sub>, and NO<sub>x</sub> emission rate, in pounds per million British thermal units (lb/mmBtu);

(4) A moisture monitoring system, as defined in § 75.11(b)(2) of this chapter and providing a permanent, continuous record of the stack gas moisture content, in percent H<sub>2</sub>O;

(5) A carbon dioxide monitoring system, consisting of a CO<sub>2</sub> pollutant concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO<sub>2</sub> concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO<sub>2</sub> emissions, in percent CO<sub>2</sub>; and

(6) An oxygen monitoring system, consisting of an O<sub>2</sub> concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O<sub>2</sub>, in percent O<sub>2</sub>.

*Control period* means the period beginning January 1 of a calendar year, except as provided in § 97.106(c)(2), and ending on December 31 of the same year, inclusive.

*Emissions* means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Administrator by the CAIR designated representative and as determined by the Administrator in accordance with subpart HH of this part.

*Excess emissions* means any ton of nitrogen oxides emitted by the CAIR NO<sub>x</sub> units at a CAIR NO<sub>x</sub> source during a control period that exceeds the CAIR NO<sub>x</sub> emissions limitation for the source.

*Fossil fuel* means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

*Fossil-fuel-fired* means, with regard to a unit, combusting any amount of fossil fuel in any calendar year.

*Fuel oil* means any petroleum-based fuel (including diesel fuel or petroleum derivatives such as oil tar) and any recycled or blended petroleum products or petroleum by-products used as a fuel whether in a liquid, solid, or gaseous state.

*General account* means a CAIR NO<sub>x</sub> Allowance Tracking System account, established under subpart FF of this part, that is not a compliance account.

*Generator* means a device that produces electricity.

*Gross electrical output* means, with regard to a cogeneration unit, electricity made available for use, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel

combusted at the unit and any on-site emission controls).

*Heat input* means, with regard to a specified period of time, the product (in mmBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Administrator by the CAIR designated representative and determined by the Administrator in accordance with subpart HH of this part and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

*Heat input rate* means the amount of heat input (in mmBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in mmBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

*Hg Budget Trading Program* means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

*Life-of-the-unit, firm power contractual arrangement* means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:

- (1) For the life of the unit;
- (2) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or
- (3) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

*Maximum design heat input* means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

*Monitoring system* means any monitoring system that meets the requirements of subpart HH of this part,

including a continuous emissions monitoring system, an alternative monitoring system, or an excepted monitoring system under part 75 of this chapter.

*Most stringent State or Federal NO<sub>x</sub> emissions limitation* means, with regard to a unit, the lowest NO<sub>x</sub> emissions limitation (in terms of lb/mmBtu) that is applicable to the unit under State or Federal law, regardless of the averaging period to which the emissions limitation applies.

*Nameplate capacity* means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings) as of such installation as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as of such completion as specified by the person conducting the physical change.

*Oil-fired* means, for purposes of subpart EE of this part, combusting fuel oil for more than 15.0 percent of the annual heat input in a specified year and not qualifying as coal-fired.

*Operator* means any person who operates, controls, or supervises a CAIR NO<sub>x</sub> unit or a CAIR NO<sub>x</sub> source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

*Owner* means any of the following persons:

(1) With regard to a CAIR NO<sub>x</sub> source or a CAIR NO<sub>x</sub> unit at a source, respectively:

- (i) Any holder of any portion of the legal or equitable title in a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit;
- (ii) Any holder of a leasehold interest in a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit; or

(iii) Any purchaser of power from a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such CAIR NO<sub>x</sub> unit; or

(2) With regard to any general account, any person who has an ownership interest with respect to the CAIR NO<sub>x</sub> allowances held in the general account and who is subject to the binding agreement for the CAIR authorized account representative to represent the person's ownership interest with respect to CAIR NO<sub>x</sub> allowances.

*Permitting authority* means the State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to issue or revise permits to meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program in accordance with subpart CC of this part or, if no such agency has been so authorized, the Administrator.

*Potential electrical output capacity* means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.

*Receive or receipt of* means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.

*Recordation, record, or recorded* means, with regard to CAIR NO<sub>x</sub> allowances, the movement of CAIR NO<sub>x</sub> allowances by the Administrator into or between CAIR NO<sub>x</sub> Allowance Tracking System accounts, for purposes of allocation, transfer, or deduction.

*Reference method* means any direct test method of sampling and analyzing for an air pollutant as specified in § 75.22 of this chapter.

*Replacement, replace, or replaced* means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

*Repowered* means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

- (1) Atmospheric or pressurized fluidized bed combustion;
- (2) Integrated gasification combined cycle;
- (3) Magnetohydrodynamics;
- (4) Direct and indirect coal-fired turbines;
- (5) Integrated gasification fuel cells; or

(6) As determined by the Administrator in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (1) through (5) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

*Sequential use of energy* means:

(1) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(2) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

*Serial number* means, for a CAIR NO<sub>x</sub> allowance, the unique identification number assigned to each CAIR NO<sub>x</sub> allowance by the Administrator.

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

*Source* means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons. For purposes of section 502(c) of the Clean Air Act, a "source," including a "source" with multiple units, shall be considered a single "facility."

*State* means one of the States or the District of Columbia that is subject to the CAIR NO<sub>x</sub> Annual Trading Program pursuant to § 52.35 of this chapter.

*Submit or serve* means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

- (1) In person;
- (2) By United States Postal Service; or
- (3) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

*Title V operating permit* means a permit issued under title V of the Clean Air Act and part 70 or part 71 of this chapter.

*Title V operating permit regulations* means the regulations that the Administrator has approved or issued as meeting the requirements of title V of

the Clean Air Act and part 70 or 71 of this chapter.

*Ton* means 2,000 pounds. For the purpose of determining compliance with the CAIR NO<sub>x</sub> emissions limitation, total tons of nitrogen oxides emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with subpart HH of this part, but with any remaining fraction of a ton equal to or greater than 0.50 tons deemed to equal one ton and any remaining fraction of a ton less than 0.50 tons deemed to equal zero tons.

*Topping-cycle cogeneration unit* means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

*Total energy input* means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself.

*Total energy output* means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

*Unit* means a stationary, fossil-fuel-fired boiler or combustion turbine or other stationary, fossil-fuel-fired combustion device.

*Unit operating day* means a calendar day in which a unit combusts any fuel.

*Unit operating hour or hour of unit operation* means an hour in which a unit combusts any fuel.

*Useful power* means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

*Useful thermal energy* means, with regard to a cogeneration unit, thermal energy that is:

- (1) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;
  - (2) Used in a heating application (e.g., space heating or domestic hot water heating); or
  - (3) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).
- Utility power distribution system* means the portion of an electricity grid

owned or operated by a utility and dedicated to delivering electricity to customers.

#### **§ 97.103 Measurements, abbreviations, and acronyms.**

Measurements, abbreviations, and acronyms used in this subpart and subparts BB through II are defined as follows:

Btu—British thermal unit  
CO<sub>2</sub>—carbon dioxide  
H<sub>2</sub>O—water  
Hg—mercury  
hr—hour  
kW—kilowatt electrical  
kWh—kilowatt hour  
lb—pound  
mmBtu—million Btu  
MWe—megawatt electrical  
MWh—megawatt hour  
NO<sub>x</sub>—nitrogen oxides  
O<sub>2</sub>—oxygen  
ppm—parts per million  
scfh—standard cubic feet per hour  
SO<sub>2</sub>—sulfur dioxide  
yr—year

#### **§ 97.104 Applicability**

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR NO<sub>x</sub> units, and any source that includes one or more such units shall be a CAIR NO<sub>x</sub> source, subject to the requirements of this subpart and subparts BB through HH of this part: any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR NO<sub>x</sub> unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR NO<sub>x</sub> unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this section shall not be CAIR NO<sub>x</sub> units:

(1)(i) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (b)(1)(i) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR NO<sub>x</sub> unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

(c) A certifying official of an owner or operator of any unit may petition the Administrator at any time for a determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR NO<sub>x</sub> Annual Trading Program to the unit.

(1) *Petition content.* The petition shall be in writing and include the identification of the unit and the relevant facts about the unit. The petition and any other documents provided to the Administrator in connection with the petition shall include the following certification statement, signed by the certifying official: "I am authorized to make this submission on behalf of the owners and operators of the unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) *Submission.* The petition and any other documents provided in connection with the petition shall be submitted to the Director of the Clean Air Markets Division (or its successor), U.S. Environmental Protection Agency, who will act on the petition as the Administrator's duly authorized representative.

(3) *Response.* The Administrator will issue a written response to the petition and may request supplemental information relevant to such petition. The Administrator's determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR NO<sub>x</sub> Annual Trading Program to the unit shall be binding on the permitting authority unless the petition or other information or documents provided in connection with the petition are found to have contained significant, relevant errors or omissions.

#### **§ 97.105 Retired unit exemption.**

(a)(1) Any CAIR NO<sub>x</sub> unit that is permanently retired and is not a CAIR NO<sub>x</sub> opt-in unit under subpart II of this part shall be exempt from the CAIR NO<sub>x</sub> Annual Trading Program, except for the provisions of this section, §§ 97.102, 97.103, 97.104, 97.106(c)(4) through (7),

97.107, 97.108, and subparts BB and EE through GG of this part.

(2) The exemption under paragraph (a)(1) of this section shall become effective the day on which the CAIR NO<sub>x</sub> unit is permanently retired. Within 30 days of the unit's permanent retirement, the CAIR designated representative shall submit a statement to the permitting authority otherwise responsible for administering any CAIR permit for the unit and shall submit a copy of the statement to the Administrator. The statement shall state, in a format prescribed by the permitting authority, that the unit was permanently retired on a specific date and will comply with the requirements of paragraph (b) of this section.

(3) After receipt of the statement under paragraph (a)(2) of this section, the permitting authority will amend any permit under subpart CC of this part covering the source at which the unit is located to add the provisions and requirements of the exemption under paragraphs (a)(1) and (b) of this section.

(b) *Special provisions.* (1) A unit exempt under paragraph (a) of this section shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.

(2) The Administrator or the permitting authority will allocate CAIR NO<sub>x</sub> allowances under subpart EE of this part to a unit exempt under paragraph (a) of this section.

(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under paragraph (a) of this section shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.

(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under paragraph (a) of this section shall comply with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(5) A unit exempt under paragraph (a) of this section and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a

complete CAIR permit application under § 97.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.

(6) On the earlier of the following dates, a unit exempt under paragraph (a) of this section shall lose its exemption:

(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under paragraph (b)(5) of this section;

(ii) The date on which the CAIR designated representative is required under paragraph (b)(5) of this section to submit a CAIR permit application for the unit; or

(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.

(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under subpart HH of this part, a unit that loses its exemption under paragraph (a) of this section shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

#### **§ 97.106 Standard requirements.**

(a) *Permit requirements.* (1) The CAIR designated representative of each CAIR NO<sub>x</sub> source required to have a title V operating permit and each CAIR NO<sub>x</sub> unit required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under § 97.122 in accordance with the deadlines specified in § 97.121; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO<sub>x</sub> source required to have a title V operating permit and each CAIR NO<sub>x</sub> unit required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC of this part for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart II of this part, the owners and operators of a CAIR NO<sub>x</sub> source that is not otherwise required to have a title V operating permit and each CAIR NO<sub>x</sub> unit that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart

CC of this part for such CAIR NO<sub>x</sub> source and such CAIR NO<sub>x</sub> unit.

(b) *Monitoring, reporting, and recordkeeping requirements.* (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HH of this part.

(2) The emissions measurements recorded and reported in accordance with subpart HH of this part shall be used to determine compliance by each CAIR NO<sub>x</sub> source with the CAIR NO<sub>x</sub> emissions limitation under paragraph (c) of this section.

(c) *Nitrogen oxides emission requirements.* (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> allowances available for compliance deductions for the control period under § 97.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO<sub>x</sub> units at the source, as determined in accordance with subpart HH of this part.

(2) A CAIR NO<sub>x</sub> unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under § 97.170(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR NO<sub>x</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> allowance was allocated.

(4) CAIR NO<sub>x</sub> allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Allowance Tracking System accounts in accordance with subparts EE, FF, GG, and II of this part.

(5) A CAIR NO<sub>x</sub> allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> Annual Trading Program. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR NO<sub>x</sub> allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EE, FF,

GG, or II of this part, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> allowance to or from a CAIR NO<sub>x</sub> source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) *Excess emissions requirements.* If a CAIR NO<sub>x</sub> source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> allowances required for deduction under § 97.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) *Recordkeeping and reporting requirements.* (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under § 97.113 for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under § 97.113 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subpart HH of this part, provided that to the extent that subpart HH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Annual Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO<sub>x</sub> Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.

(2) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program, including those under subpart HH of this part.

(f) *Liability.* (1) Each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit shall meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.

(2) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program that applies to a CAIR NO<sub>x</sub> source or the CAIR designated representative of a CAIR NO<sub>x</sub> source shall also apply to the owners and operators of such source and of the CAIR NO<sub>x</sub> units at the source.

(3) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program that applies to a CAIR NO<sub>x</sub> unit or the CAIR designated representative of a CAIR NO<sub>x</sub> unit shall also apply to the owners and operators of such unit.

(g) *Effect on other authorities.* No provision of the CAIR NO<sub>x</sub> Annual Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> source or CAIR NO<sub>x</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

#### § 97.107 Computation of time.

(a) Unless otherwise stated, any time period scheduled, under the CAIR NO<sub>x</sub> Annual Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled, under the CAIR NO<sub>x</sub> Annual Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period, under the CAIR NO<sub>x</sub> Annual Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

#### § 97.108 Appeal procedures.

The appeal procedures for decisions of the Administrator under the CAIR NO<sub>x</sub> Annual Trading Program are set forth in part 78 of this chapter.

### Subpart BB—CAIR Designated Representative for CAIR NO<sub>x</sub> Sources

#### § 97.110 Authorization and responsibilities of CAIR designated representative.

(a) Except as provided under § 97.111, each CAIR NO<sub>x</sub> source, including all CAIR NO<sub>x</sub> units at the source, shall have one and only one CAIR designated representative, with regard to all matters under the CAIR NO<sub>x</sub> Annual Trading Program concerning the source or any CAIR NO<sub>x</sub> unit at the source.

(b) The CAIR designated representative of the CAIR NO<sub>x</sub> source shall be selected by an agreement binding on the owners and operators of the source and all CAIR NO<sub>x</sub> units at the source and shall act in accordance with the certification statement in § 97.113(a)(4)(iv).

(c) Upon receipt by the Administrator of a complete certificate of representation under § 97.113, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR NO<sub>x</sub> source represented and each CAIR NO<sub>x</sub> unit at the source in all matters pertaining to the CAIR NO<sub>x</sub> Annual Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the permitting authority, the Administrator, or a court regarding the source or unit.

(d) No CAIR permit will be issued, no emissions data reports will be accepted, and no CAIR NO<sub>x</sub> Allowance Tracking System account will be established for a CAIR NO<sub>x</sub> unit at a source, until the Administrator has received a complete certificate of representation under § 97.113 for a CAIR designated representative of the source and the CAIR NO<sub>x</sub> units at the source.

(e)(1) Each submission under the CAIR NO<sub>x</sub> Annual Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR NO<sub>x</sub> source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary



responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) The permitting authority and the Administrator will accept or act on a submission made on behalf of owner or operators of a CAIR NO<sub>x</sub> source or a CAIR NO<sub>x</sub> unit only if the submission has been made, signed, and certified in accordance with paragraph (e)(1) of this section.

**§ 97.111 Alternate CAIR designated representative.**

(a) A certificate of representation under § 97.113 may designate one and only one alternate CAIR designated representative, who may act on behalf of the CAIR designated representative. The agreement by which the alternate CAIR designated representative is selected shall include a procedure for authorizing the alternate CAIR designated representative to act in lieu of the CAIR designated representative.

(b) Upon receipt by the Administrator of a complete certificate of representation under § 97.113, any representation, action, inaction, or submission by the alternate CAIR designated representative shall be deemed to be a representation, action, inaction, or submission by the CAIR designated representative.

(c) Except in this section and §§ 97.102, 97.110(a) and (d), 97.112, 97.113, 97.115, 97.151 and 97.182, whenever the term "CAIR designated representative" is used in subparts AA through II of this part, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

**§ 97.112 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.**

(a) *Changing CAIR designated representative.* The CAIR designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.113. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the

new CAIR designated representative and the owners and operators of the CAIR NO<sub>x</sub> source and the CAIR NO<sub>x</sub> units at the source.

(b) *Changing alternate CAIR designated representative.* The alternate CAIR designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.113. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the new alternate CAIR designated representative and the owners and operators of the CAIR NO<sub>x</sub> source and the CAIR NO<sub>x</sub> units at the source.

(c) *Changes in owners and operators.* (1) In the event an owner or operator of a CAIR NO<sub>x</sub> source or a CAIR NO<sub>x</sub> unit is not included in the list of owners and operators in the certificate of representation under § 97.113, such owner or operator shall be deemed to be subject to and bound by the certificate of representation, the representations, actions, inactions, and submissions of the CAIR designated representative and any alternate CAIR designated representative of the source or unit, and the decisions and orders of the permitting authority, the Administrator, or a court, as if the owner or operator were included in such list.

(2) Within 30 days following any change in the owners and operators of a CAIR NO<sub>x</sub> source or a CAIR NO<sub>x</sub> unit, including the addition of a new owner or operator, the CAIR designated representative or any alternate CAIR designated representative shall submit a revision to the certificate of representation under § 97.113 amending the list of owners and operators to include the change.

**§ 97.113 Certificate of representation.**

(a) A complete certificate of representation for a CAIR designated representative or an alternate CAIR designated representative shall include the following elements in a format prescribed by the Administrator:

(1) Identification of the CAIR NO<sub>x</sub> source, and each CAIR NO<sub>x</sub> unit at the source, for which the certificate of representation is submitted, including identification and nameplate capacity of each generator served by each such unit.

(2) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR designated representative

and any alternate CAIR designated representative.

(3) A list of the owners and operators of the CAIR NO<sub>x</sub> source and of each CAIR NO<sub>x</sub> unit at the source.

(4) The following certification statements by the CAIR designated representative and any alternate CAIR designated representative—

(i) "I certify that I was selected as the CAIR designated representative or alternate CAIR designated representative, as applicable, by an agreement binding on the owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source."

(ii) "I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR NO<sub>x</sub> Annual Trading Program on behalf of the owners and operators of the source and of each CAIR NO<sub>x</sub> unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions."

(iii) "I certify that the owners and operators of the source and of each CAIR NO<sub>x</sub> unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit."

(iv) (Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, a CAIR NO<sub>x</sub> unit, or where a utility or industrial customer purchases power from a CAIR NO<sub>x</sub> unit under a life-of-the-unit, firm power contractual arrangement, I certify that: I have given a written notice of my selection as the 'CAIR designated representative' or 'alternate CAIR designated representative', as applicable, and of the agreement by which I was selected to each owner and operator of the source and of each CAIR NO<sub>x</sub> unit at the source; and CAIR NO<sub>x</sub> allowances and proceeds of transactions involving CAIR NO<sub>x</sub> allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of CAIR NO<sub>x</sub> allowances by contract, CAIR NO<sub>x</sub> allowances and proceeds of transactions involving CAIR NO<sub>x</sub> allowances will be deemed to be held or distributed in accordance with the contract."

(5) The signature of the CAIR designated representative and any alternate CAIR designated representative and the dates signed.

(b) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the certificate of

representation shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

**§ 97.114 Objections concerning CAIR designated representative.**

(a) Once a complete certificate of representation under § 97.113 has been submitted and received, the permitting authority and the Administrator will rely on the certificate of representation unless and until a superseding complete certificate of representation under § 97.113 is received by the Administrator.

(b) Except as provided in § 97.112(a) or (b), no objection or other communication submitted to the permitting authority or the Administrator concerning the authorization, or any representation, action, inaction, or submission, of the CAIR designated representative shall affect any representation, action, inaction, or submission of the CAIR designated representative or the finality of any decision or order by the permitting authority or the Administrator under the CAIR NO<sub>x</sub> Annual Trading Program.

(c) Neither the permitting authority nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any CAIR designated representative, including private legal disputes concerning the proceeds of CAIR NO<sub>x</sub> allowance transfers.

**§ 97.115 Delegation by CAIR designated representative and alternate CAIR designated representative.**

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 97.115(d) shall be deemed to be an electronic submission by me."

(ii) "Until this notice of delegation is superseded by another notice of delegation under 40 CFR 97.115(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 97.115 is terminated."

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

**Subpart CC—Permits**

**§ 97.120 General CAIR NO<sub>x</sub> Annual Trading Program permit requirements.**

(a) For each CAIR NO<sub>x</sub> source required to have a title V operating permit or required, under subpart II of this part, to have a title V operating permit or other federally enforceable permit, such permit shall include a CAIR permit administered by the permitting authority for the title V operating permit or the federally enforceable permit as applicable. The CAIR portion of the title V permit or other federally enforceable permit as applicable shall be administered in accordance with the permitting authority's title V operating permits regulations promulgated under part 70 or 71 of this chapter or the permitting authority's regulations for other federally enforceable permits as applicable, except as provided otherwise by § 97.105, this subpart, and subpart II of this part.

(b) Each CAIR permit shall contain, with regard to the CAIR NO<sub>x</sub> source and the CAIR NO<sub>x</sub> units at the source covered by the CAIR permit, all applicable CAIR NO<sub>x</sub> Annual Trading Program, CAIR NO<sub>x</sub> Ozone Season Trading Program, and CAIR SO<sub>2</sub> Trading Program requirements and shall be a complete and separable portion of the title V operating permit or other federally enforceable permit under paragraph (a) of this section.

**§ 97.121 Submission of CAIR permit applications.**

(a) *Duty to apply.* The CAIR designated representative of any CAIR NO<sub>x</sub> source required to have a title V operating permit shall submit to the permitting authority a complete CAIR permit application under § 97.122 for the source covering each CAIR NO<sub>x</sub> unit at the source at least 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the CAIR NO<sub>x</sub> unit commences commercial operation, except as provided in § 97.183(a).

(b) *Duty to reapply.* For a CAIR NO<sub>x</sub> source required to have a title V operating permit, the CAIR designated representative shall submit a complete CAIR permit application under § 97.122 for the source covering each CAIR NO<sub>x</sub> unit at the source to renew the CAIR permit in accordance with the permitting authority's title V operating permits regulations addressing permit renewal, except as provided in § 97.183(b).

**§ 97.122 Information requirements for CAIR permit applications.**

A complete CAIR permit application shall include the following elements concerning the CAIR NO<sub>x</sub> source for which the application is submitted, in a format prescribed by the permitting authority:

- (a) Identification of the CAIR NO<sub>x</sub> source;
- (b) Identification of each CAIR NO<sub>x</sub> unit at the CAIR NO<sub>x</sub> source; and
- (c) The standard requirements under § 97.106.

**§ 97.123 CAIR permit contents and term.**

(a) Each CAIR permit will contain, in a format prescribed by the permitting authority, all elements required for a complete CAIR permit application under § 97.122.

(b) Each CAIR permit is deemed to incorporate automatically the definitions of terms under § 97.102 and, upon recordation by the Administrator under subpart EE, FF, GG, or II of this part, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> allowance to or from the compliance account of the CAIR NO<sub>x</sub> source covered by the permit.

(c) The term of the CAIR permit will be set by the permitting authority, as necessary to facilitate coordination of the renewal of the CAIR permit with issuance, revision, or renewal of the CAIR NO<sub>x</sub> source's title V operating permit or other federally enforceable permit as applicable.

**§ 97.124 CAIR permit revisions.**

Except as provided in § 97.123(b), the permitting authority will revise the

CAIR permit, as necessary, in accordance with the permitting authority's title V operating permits regulations or the permitting authority's regulations for other federally enforceable permits as applicable addressing permit revisions.

**Subpart DD—[Reserved]****Subpart EE—CAIR NO<sub>x</sub> Allowance Allocations****§ 97.140 State trading budgets.**

The State trading budgets for annual allocations of CAIR NO<sub>x</sub> allowances for the control periods in 2009 through 2014 and in 2015 and thereafter are respectively as follows:

State	State trading budget for 2009–2014 (tons)	State trading budget for 2015 and thereafter (tons)
Alabama .....	69,020	57,517
Delaware .....	4,166	3,472
District of Columbia .....	144	120
Florida .....	99,445	82,871
Georgia .....	66,321	55,268
Illinois .....	76,230	63,525
Indiana .....	108,935	90,779
Iowa .....	32,692	27,243
Kentucky .....	83,205	69,337
Louisiana .....	35,512	29,593
Maryland .....	27,724	23,104
Michigan .....	65,304	54,420
Minnesota .....	31,443	26,203
Mississippi .....	17,807	14,839
Missouri .....	59,871	49,892
New Jersey .....	12,670	10,558
New York .....	45,617	38,014
North Carolina .....	62,183	51,819
Ohio .....	108,667	90,556
Pennsylvania .....	99,049	82,541
South Carolina .....	32,662	27,219
Tennessee .....	50,973	42,478
Texas .....	181,014	150,845
Virginia .....	36,074	30,062
West Virginia .....	74,220	61,850
Wisconsin .....	40,759	33,966
Total .....	1,521,707	1,268,091

**§ 97.141 Timing requirements for CAIR NO<sub>x</sub> allowance allocations.**

(a) The Administrator will determine by order the CAIR NO<sub>x</sub> allowance allocations, in accordance with § 97.142(a) and (b), for the control periods in 2009, 2010, 2011, 2012, 2013, and 2014.

(b) By July 31, 2011 and July 31 of each year thereafter, the Administrator will determine by order the CAIR NO<sub>x</sub> allowance allocations, in accordance with § 97.142(a) and (b), for the control

period in the fourth year after the year of the applicable deadline for determination under this paragraph.

(c) By July 31, 2009 and July 31 of each year thereafter, the Administrator will determine by order the CAIR NO<sub>x</sub> allowance allocations, in accordance with § 97.142(a), (c), and (d), for the control period in the year of the applicable deadline for determination under this paragraph.

(d) The Administrator will make available to the public each

determination of CAIR NO<sub>x</sub> allowances under paragraph (a), (b), or (c) of this section and will provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with § 97.142. Based on any such objections, the Administrator will adjust each determination to the extent necessary to ensure that it is in accordance with § 97.142.

**§ 97.142 CAIR NO<sub>x</sub> allowance allocations.**

(a)(1) The baseline heat input (in mmBtu) used with respect to CAIR NO<sub>x</sub> allowance allocations under paragraph (b) of this section for each CAIR NO<sub>x</sub> unit will be:

(i) For units commencing operation before January 1, 2001 the average of the 3 highest amounts of the unit's adjusted control period heat input for 2000 through 2004, with the adjusted control period heat input for each year calculated as follows:

(A) If the unit is coal-fired during the year, the unit's control period heat input for such year is multiplied by 100 percent;

(B) If the unit is oil-fired during the year, the unit's control period heat input for such year is multiplied by 60 percent; and

(C) If the unit is not subject to paragraph (a)(1)(i)(A) or (B) of this section, the unit's control period heat input for such year is multiplied by 40 percent.

(ii) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of 5 or more consecutive calendar years, the average of the 3 highest amounts of the unit's total converted control period heat input over the first such 5 years.

(2)(i) A unit's control period heat input, and a unit's status as coal-fired or oil-fired, for a calendar year under paragraph (a)(1)(i) of this section, and a unit's total tons of NO<sub>x</sub> emissions during a calendar year under paragraph (c)(3) of this section, will be determined in accordance with part 75 of this chapter, to the extent the unit was otherwise subject to the requirements of part 75 of this chapter for the year, or will be based on the best available data reported to the Administrator for the unit (in a format prescribed by the Administrator), to the extent the unit was not otherwise subject to the requirements of part 75 of this chapter for the year.

(ii) A unit's converted control period heat input for a calendar year specified under paragraph (a)(1)(ii) of this section equals:

(A) Except as provided in paragraph (a)(2)(ii)(B) or (C) of this section, the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 Btu/kWh, if the unit is coal-fired for the year, or 6,675 Btu/kWh, if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/mmBtu, provided that if a generator is served by 2 or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's share of the total control

period heat input of such units for the year;

(B) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and by 1,000,000 Btu/mmBtu; or

(C) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.

(iii) Gross electrical output and total heat energy under paragraph (a)(2)(ii) of this section will be determined based on the best available data reported to the Administrator for the unit (in a format prescribed by the Administrator).

(3) The Administrator will determine what data are the best available data under paragraph (a)(2) of this section 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.

(b)(1) For each control period in 2009 and thereafter, the Administrator will allocate to all CAIR NO<sub>x</sub> units in a State that have a baseline heat input (as determined under paragraph (a) of this section) a total amount of CAIR NO<sub>x</sub> allowances equal to 95 percent for a control period during 2009 through 2014, and 97 percent for a control period during 2015 and thereafter, of the tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.140 (except as provided in paragraphs (d) and (e) of this section).

(2) The Administrator will allocate CAIR NO<sub>x</sub> allowances to each CAIR NO<sub>x</sub> unit under paragraph (b)(1) of this section in an amount determined by multiplying the total amount of CAIR NO<sub>x</sub> allowances allocated under paragraph (b)(1) of this section by the ratio of the baseline heat input of such CAIR NO<sub>x</sub> unit to the total amount of baseline heat input of all such CAIR NO<sub>x</sub> units in the State and rounding to the nearest whole allowance as appropriate.

(c) For each control period in 2009 and thereafter, the Administrator will allocate CAIR NO<sub>x</sub> allowances to CAIR NO<sub>x</sub> units in a State that are not allocated CAIR NO<sub>x</sub> allowances under paragraph (b) of this section because the units do not yet have a baseline heat input under paragraph (a) of this section or because the units have a baseline heat input but all CAIR NO<sub>x</sub> allowances available under paragraph (b) of this section for the control period are already allocated, in accordance with the following procedures:

(1) The Administrator will establish a separate new unit set-aside for each control period. Each new unit set-aside will be allocated CAIR NO<sub>x</sub> allowances equal to 5 percent for a control period in 2009 through 2014, and 3 percent for a control period in 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.140.

(2) The CAIR designated representative of such a CAIR NO<sub>x</sub> unit may submit to the Administrator a request, in a format specified by the Administrator, to be allocated CAIR NO<sub>x</sub> allowances, starting with the later of the control period in 2009 or the first control period after the control period in which the CAIR NO<sub>x</sub> unit commences commercial operation and until the first control period for which the unit is allocated CAIR NO<sub>x</sub> allowances under paragraph (b) of this section. A separate CAIR NO<sub>x</sub> allowance allocation request for each control period for which CAIR NO<sub>x</sub> allowances are sought must be submitted on or before May 1 of such control period and after the date on which the CAIR NO<sub>x</sub> unit commences commercial operation.

(3) In a CAIR NO<sub>x</sub> allowance allocation request under paragraph (c)(2) of this section, the CAIR designated representative may request for a control period CAIR NO<sub>x</sub> allowances in an amount not exceeding the CAIR NO<sub>x</sub> unit's total tons of NO<sub>x</sub> emissions during the calendar year immediately before such control period.

(4) The Administrator will review each CAIR NO<sub>x</sub> allowance allocation request under paragraph (c)(2) of this section and will allocate CAIR NO<sub>x</sub> allowances for each control period pursuant to such request as follows:

(i) The Administrator will accept an allowance allocation request only if the request meets, or is adjusted by the Administrator as necessary to meet, the requirements of paragraphs (c)(2) and (3) of this section.

(ii) On or after May 1 of the control period, the Administrator will determine the sum of the CAIR NO<sub>x</sub> allowances requested (as adjusted under

paragraph (c)(4)(i) of this section) in all allowance allocation requests accepted under paragraph (c)(4)(i) of this section for the control period.

(iii) If the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (c)(4)(ii) of this section, then the Administrator will allocate the amount of CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (c)(4)(i) of this section) to each CAIR NO<sub>x</sub> unit covered by an allowance allocation request accepted under paragraph (c)(4)(i) of this section.

(iv) If the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period is less than the sum under paragraph (c)(4)(ii) of this section, then the Administrator will allocate to each CAIR NO<sub>x</sub> unit covered by an allowance allocation request accepted under paragraph (c)(4)(i) of this section the amount of the CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (c)(4)(i) of this section), multiplied by the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period, divided by the sum determined under paragraph (c)(4)(ii) of this section, and rounded to the nearest whole allowance as appropriate.

(v) The Administrator will notify each CAIR designated representative that submitted an allowance allocation request of the amount of CAIR NO<sub>x</sub> allowances (if any) allocated for the control period to the CAIR NO<sub>x</sub> unit covered by the request.

(d) If, after completion of the procedures under paragraph (c)(4) of this section for a control period, any unallocated CAIR NO<sub>x</sub> allowances remain in the new unit set-aside under paragraph (c) of this section for a State for the control period, the Administrator will allocate to each CAIR NO<sub>x</sub> unit that was allocated CAIR NO<sub>x</sub> allowances under paragraph (b) of this section in the State an amount of CAIR NO<sub>x</sub> allowances equal to the total amount of such remaining unallocated CAIR NO<sub>x</sub> allowances, multiplied by the unit's allocation under paragraph (b) of this section, divided by 95 percent for a control period during 2009 through 2014, and 97 percent for a control period during 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.140, and rounded to the nearest whole allowance as appropriate.

(e) If the Administrator determines that CAIR NO<sub>x</sub> allowances were allocated under paragraphs (a) and (b) of this section, paragraphs (a) and (c) of this section, or paragraph (d) of this section for a control period and that the

recipient of the allocation is not actually a CAIR NO<sub>x</sub> unit under § 97.104 in such control period, then the Administrator will notify the CAIR designated representative and will act in accordance with the following procedures:

(1) Except as provided in paragraph (e)(2) or (3) of this section, the Administrator will not record such CAIR NO<sub>x</sub> allowances under § 97.153.

(2) If the Administrator already recorded such CAIR NO<sub>x</sub> allowances under § 97.153 and if the Administrator makes such determination before making deductions for the source that includes such recipient under § 97.154(b) for the control period, then the Administrator will deduct from the account in which such CAIR NO<sub>x</sub> allowances were recorded under § 97.153 an amount of CAIR NO<sub>x</sub> allowances allocated for the same or a prior control period equal to the amount of such already recorded CAIR NO<sub>x</sub> allowances. The CAIR designated representative shall ensure that there are sufficient CAIR NO<sub>x</sub> allowances in such account for completion of the deduction.

(3) If the Administrator already recorded such CAIR NO<sub>x</sub> allowances under § 97.153 and if the Administrator makes such determination after making deductions for the source that includes such recipient under § 97.154(b) for the control period, then the Administrator will apply paragraph (e)(1) or (2) of this section, as appropriate, to any subsequent control period for which CAIR NO<sub>x</sub> allowances were allocated to such recipient.

(4) The Administrator will transfer the CAIR NO<sub>x</sub> allowances that are not recorded, or that are deducted, in accordance with paragraphs (e)(1), (2), and (3) of this section to a new unit set-aside for the State in which such recipient is located.

#### § 97.143 Compliance supplement pool.

(a) In addition to the CAIR NO<sub>x</sub> allowances allocated under § 97.142, the Administrator may allocate for the control period in 2009 up to the following amount of CAIR NO<sub>x</sub> allowances to CAIR NO<sub>x</sub> units in the respective State:

State	Compliance supplement pool
Alabama .....	10,166
Delaware .....	843
District of Columbia .....	0
Florida .....	8,335
Georgia .....	12,397
Illinois .....	11,299
Indiana .....	20,155

State	Compliance supplement pool
Iowa .....	6,978
Kentucky .....	14,935
Louisiana .....	2,251
Maryland .....	4,670
Michigan .....	8,347
Minnesota .....	6,528
Mississippi .....	3,066
Missouri .....	9,044
New Jersey .....	660
New York .....	0
North Carolina .....	0
Ohio .....	25,037
Pennsylvania .....	16,009
South Carolina .....	2,600
Tennessee .....	8,944
Texas .....	772
Virginia .....	5,134
West Virginia .....	16,929
Wisconsin .....	4,898
Total .....	199,997

(b) For any CAIR NO<sub>x</sub> unit in a State, if the unit's average annual NO<sub>x</sub> emission rate for 2007 or 2008 is less than 0.25 lb/mmBtu and, where such unit is included in a NO<sub>x</sub> averaging plan under § 76.11 of this chapter under the Acid Rain Program for such year, the unit's NO<sub>x</sub> averaging plan has an actual weighted average NO<sub>x</sub> emission rate for such year equal to or less than the actual weighted average NO<sub>x</sub> emission rate for the year before such year and if the unit achieves NO<sub>x</sub> emission reductions in 2007 and 2008, the CAIR designated representative of the unit may request early reduction credits, and allocation of CAIR NO<sub>x</sub> allowances from the compliance supplement pool under paragraph (a) of this section for such early reduction credits, in accordance with the following:

(1) The owners and operators of such CAIR NO<sub>x</sub> unit shall monitor and report the NO<sub>x</sub> emissions rate and the heat input of the unit in accordance with subpart HH of this part in each control period for which early reduction credit is requested.

(2) The CAIR designated representative of such CAIR NO<sub>x</sub> unit shall submit to the Administrator by May 1, 2009 a request, in a format specified by the Administrator, for allocation of an amount of CAIR NO<sub>x</sub> allowances from the compliance supplement pool not exceeding the sum of the unit's heat input for the control period in 2007 multiplied by the difference (if any greater than zero) between 0.25 lb/mmBtu and the unit's NO<sub>x</sub> emission rate for the control period in 2007 plus the unit's heat input for the control period in 2008 multiplied by the difference (if any greater than zero) between 0.25 lb/mmBtu and the unit's

NO<sub>x</sub> emission rate for the control period in 2008, determined in accordance with subpart HH of this part and with the sum divided by 2,000 lb/ton and rounded to the nearest whole number of tons as appropriate.

(c) For any CAIR NO<sub>x</sub> unit in a State whose compliance with CAIR NO<sub>x</sub> emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during such control period, the CAIR designated representative of the unit may request the allocation of CAIR NO<sub>x</sub> allowances from the compliance supplement pool under paragraph (a) of this section, in accordance with the following:

(1) The CAIR designated representative of such CAIR NO<sub>x</sub> unit shall submit to the Administrator by May 1, 2009 a request, in a format specified by the Administrator, for allocation of an amount of CAIR NO<sub>x</sub> allowances from the compliance supplement pool not exceeding the minimum amount of CAIR NO<sub>x</sub> allowances necessary to remove such undue risk to the reliability of electricity supply.

(2) In the request under paragraph (c)(1) of this section, the CAIR designated representative of such CAIR NO<sub>x</sub> unit shall demonstrate that, in the absence of allocation to the unit of the amount of CAIR NO<sub>x</sub> allowances requested, the unit's compliance with CAIR NO<sub>x</sub> emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during such control period. This demonstration must include a showing that it would not be feasible for the owners and operators of the unit to:

(i) Obtain a sufficient amount of electricity from other electricity generation facilities, during the installation of control technology at the unit for compliance with the CAIR NO<sub>x</sub> emissions limitation, to prevent such undue risk; or

(ii) Obtain under paragraphs (b) and (d) of this section, or otherwise obtain, a sufficient amount of CAIR NO<sub>x</sub> allowances to prevent such undue risk.

(d) The Administrator will review each request under paragraph (b) or (c) of this section submitted by May 1, 2009 and will allocate CAIR NO<sub>x</sub> allowances for the control period in 2009 to CAIR NO<sub>x</sub> units in a State and covered by such request as follows:

(1) Upon receipt of each such request, the Administrator will make any necessary adjustments to the request to ensure that the amount of the CAIR NO<sub>x</sub> allowances requested meets the requirements of paragraph (b) or (c) of this section.

(2) If the State's compliance supplement pool under paragraph (a) of this section has an amount of CAIR NO<sub>x</sub> allowances not less than the total amount of CAIR NO<sub>x</sub> allowances in all such requests (as adjusted under paragraph (d)(1) of this section), the Administrator will allocate to each CAIR NO<sub>x</sub> unit covered by such requests the amount of CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (d)(1) of this section).

(3) If the State's compliance supplement pool under paragraph (a) of this section has a smaller amount of CAIR NO<sub>x</sub> allowances than the total amount of CAIR NO<sub>x</sub> allowances in all such requests (as adjusted under paragraph (d)(1) of this section), the Administrator will allocate CAIR NO<sub>x</sub> allowances to each CAIR NO<sub>x</sub> unit covered by such requests according to the following formula and rounding to the nearest whole allowance as appropriate:

$$\text{Unit's allocation} = \frac{\text{Unit's adjusted allocation} \times (\text{State's compliance supplement pool} \div \text{Total adjusted allocations for all units})}{\text{Total adjusted allocations for all units}}$$

Where:

“Unit's allocation” is the amount of CAIR NO<sub>x</sub> allowances allocated to the unit from the State's compliance supplement pool.

“Unit's adjusted allocation” is the amount of CAIR NO<sub>x</sub> allowances requested for the unit under paragraph (b) or (c) of this section, as adjusted under paragraph (d)(1) of this section.

“State's compliance supplement pool” is the amount of CAIR NO<sub>x</sub> allowances in the State's compliance supplement pool.

“Total adjusted allocations for all units” is the sum of the amounts of allocations requested for all units under paragraph (b) or (c) of this section, as adjusted under paragraph (d)(1) of this section.

(4) By July 31, 2009, the Administrator will determine by order the allocations under paragraph (d)(2) or (3) of this section. The Administrator will make available to the public each determination of CAIR NO<sub>x</sub> allowances under such paragraph and will provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with paragraph (b) or (c) of this section and paragraph (d)(2) or (3) of this section, as appropriate. Based on any such objections, the Administrator will adjust each determination to the extent necessary to ensure that it is in accordance with such paragraphs.

(5) By January 1, 2010, the Administrator will record the allocations under paragraph (d)(4) of this section.

#### **§ 97.144 Alternative of allocation of CAIR NO<sub>x</sub> allowances and compliance supplement pool by permitting authority.**

(a) Notwithstanding §§ 97.141, 97.142, and 97.153 if a State submits, and the Administrator approves, a State implementation plan revision in accordance with § 51.123(p)(1) of this chapter providing for allocation of CAIR NO<sub>x</sub> allowances by the permitting authority, then the permitting authority shall make such allocations in accordance with such approved State implementation plan revision, the Administrator will not make allocations under §§ 97.141 and 97.142 for the CAIR NO<sub>x</sub> units in the State, and under § 97.153, the Administrator will record the allocations made under such approved State implementation plan revision instead of allocations made under §§ 97.141 and 97.142.

(b) Notwithstanding § 97.143, if a State submits, and the Administrator approves, a State implementation plan revision in accordance with § 51.123(p)(2) of this chapter providing for allocation of the State's compliance supplement pool by the permitting authority, then the permitting authority shall make such allocations in accordance with such approved State implementation plan revision, the Administrator will not make allocations under § 97.143(d)(4) for the CAIR NO<sub>x</sub> units in the State, and under § 97.143(d)(5), the Administrator will record the allocations of the State's compliance supplement pool made under such approved State implementation plan revision instead of allocations made under § 97.143(d)(4).

(c)(1) In implementing paragraph (a) of this section and §§ 97.141, 97.142, and 97.153, the Administrator will ensure that the total amount of CAIR NO<sub>x</sub> allowances allocated, under such provisions and under a State's State implementation plan revision approved in accordance with § 51.123(p)(1) of this chapter, for a control period for CAIR NO<sub>x</sub> sources in the State or for other entities specified by the permitting authority will not exceed the State's State trading budget for the year of the control period.

(2) In implementing paragraph (b) of this section and § 97.143, the Administrator will ensure that the total amount of CAIR NO<sub>x</sub> allowances allocated, under such provisions and under a State's State implementation plan revision approved in accordance with § 51.123(p)(2), for CAIR NO<sub>x</sub> sources in the State will not exceed the State's compliance supplement pool.

**Appendix A to Subpart EE of Part 97—  
States With Approved State  
Implementation Plan Revisions  
Concerning Allocations**

1. The following States have State Implementation Plan revisions under § 51.123(p)(1) of this chapter approved by the Administrator and providing for allocation of CAIR NO<sub>x</sub> allowances by the permitting authority under § 97.144(a):

[Reserved]

2. The following States have State Implementation Plan revisions under § 51.123(p)(2) of this chapter approved by the Administrator and providing for allocation of the Compliance Supplement Pool by the permitting authority under § 97.144(b):

[Reserved]

**Subpart FF—CAIR NO<sub>x</sub> Allowance  
Tracking System**

**§ 97.150 [Reserved]**

**§ 97.151 Establishment of accounts.**

(a) *Compliance accounts.* Except as provided in § 97.184(e), upon receipt of a complete certificate of representation under § 97.113, the Administrator will establish a compliance account for the CAIR NO<sub>x</sub> source for which the certificate of representation was submitted, unless the source already has a compliance account.

(b) *General accounts—(1) Application for general account.* (i) Any person may apply to open a general account for the purpose of holding and transferring CAIR NO<sub>x</sub> allowances. An application for a general account may designate one and only one CAIR authorized account representative and one and only one alternate CAIR authorized account representative who may act on behalf of the CAIR authorized account representative. The agreement by which the alternate CAIR authorized account representative is selected shall include a procedure for authorizing the alternate CAIR authorized account representative to act in lieu of the CAIR authorized account representative.

(ii) A complete application for a general account shall be submitted to the Administrator and shall include the following elements in a format prescribed by the Administrator:

(A) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR authorized account representative and any alternate CAIR authorized account representative;

(B) Organization name and type of organization, if applicable;

(C) A list of all persons subject to a binding agreement for the CAIR authorized account representative and any alternate CAIR authorized account representative to represent their

ownership interest with respect to the CAIR NO<sub>x</sub> allowances held in the general account;

(D) The following certification statement by the CAIR authorized account representative and any alternate CAIR authorized account representative: “I certify that I was selected as the CAIR authorized account representative or the alternate CAIR authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CAIR NO<sub>x</sub> allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR NO<sub>x</sub> Annual Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account.”

(E) The signature of the CAIR authorized account representative and any alternate CAIR authorized account representative and the dates signed.

(iii) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

(2) *Authorization of CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Upon receipt by the Administrator of a complete application for a general account under paragraph (b)(1) of this section:

(A) The Administrator will establish a general account for the person or persons for whom the application is submitted.

(B) The CAIR authorized account representative and any alternate CAIR authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to CAIR NO<sub>x</sub> allowances held in the general account in all matters pertaining to the CAIR NO<sub>x</sub> Annual Trading Program, notwithstanding any agreement between the CAIR authorized account representative or any alternate CAIR authorized account representative and such person. Any such person shall be bound by any order or decision issued to the CAIR authorized account

representative or any alternate CAIR authorized account representative by the Administrator or a court regarding the general account.

(C) Any representation, action, inaction, or submission by any alternate CAIR authorized account representative shall be deemed to be a representation, action, inaction, or submission by the CAIR authorized account representative.

(ii) Each submission concerning the general account shall be submitted, signed, and certified by the CAIR authorized account representative or any alternate CAIR authorized account representative for the persons having an ownership interest with respect to CAIR NO<sub>x</sub> allowances held in the general account. Each such submission shall include the following certification statement by the CAIR authorized account representative or any alternate CAIR authorized account representative: “I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CAIR NO<sub>x</sub> allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.”

(iii) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (b)(2)(ii) of this section.

(3) *Changing CAIR authorized account representative and alternate CAIR authorized account representative; changes in persons with ownership interest.* (i) The CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new CAIR authorized account representative



and the persons with an ownership interest with respect to the CAIR NO<sub>x</sub> allowances in the general account.

(ii) The alternate CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new alternate CAIR authorized account representative and the persons with an ownership interest with respect to the CAIR NO<sub>x</sub> allowances in the general account.

(iii)(A) In the event a person having an ownership interest with respect to CAIR NO<sub>x</sub> allowances in the general account is not included in the list of such persons in the application for a general account, such person shall be deemed to be subject to and bound by the application for a general account, the representation, actions, inactions, and submissions of the CAIR authorized account representative and any alternate CAIR authorized account representative of the account, and the decisions and orders of the Administrator or a court, as if the person were included in such list.

(B) Within 30 days following any change in the persons having an ownership interest with respect to CAIR NO<sub>x</sub> allowances in the general account, including the addition of a new person, the CAIR authorized account representative or any alternate CAIR authorized account representative shall submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the CAIR NO<sub>x</sub> allowances in the general account to include the change.

(4) *Objections concerning CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Once a complete application for a general account under paragraph (b)(1) of this section has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under paragraph (b)(1) of this section is received by the Administrator.

(ii) Except as provided in paragraph (b)(3)(i) or (ii) of this section, no objection or other communication submitted to the Administrator

concerning the authorization, or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account shall affect any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative or the finality of any decision or order by the Administrator under the CAIR NO<sub>x</sub> Annual Trading Program.

(iii) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account, including private legal disputes concerning the proceeds of CAIR NO<sub>x</sub> allowance transfers.

(5) *Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.* (i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FF and GG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FF and GG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(C) For each such natural person, a list of the type or types of electronic submissions under paragraph (b)(5)(i) or (ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 97.151(b)(5)(iv) shall be deemed to be an electronic submission by me."; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "Until this notice of delegation is superseded by another notice of delegation under 40 CFR

97.151(b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 97.151(b)(5) is terminated."

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

(c) *Account identification.* The Administrator will assign a unique identifying number to each account established under paragraph (a) or (b) of this section.

#### **§ 97.152 Responsibilities of CAIR authorized account representative.**

Following the establishment of a CAIR NO<sub>x</sub> Allowance Tracking System account, all submissions to the

Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of CAIR NO<sub>x</sub> allowances in the account, shall be made only by the CAIR authorized account representative for the account.

**§ 97.153 Recordation of CAIR NO<sub>x</sub> allowance allocations.**

(a) By September 30, 2007, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source in accordance with § 97.142(a) and (b) for the control period in 2009.

(b) By September 30, 2008, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source in accordance with § 97.142(a) and (b) for the control period in 2010.

(c) By September 30, 2009, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source in accordance with § 97.142(a) and (b) for the control periods in 2011, 2012, and 2013.

(d) By December 1, 2010 and December 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source in accordance with § 97.142(a) and (b) for the control period in the fourth year after the year of the applicable deadline for recordation under this paragraph.

(e) By December 1, 2009 and December 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> source's compliance account the CAIR NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> units at the source in accordance with § 97.142(a) and (c) for the control period in the year of the applicable deadline for recordation under this paragraph.

(f) *Serial numbers for allocated CAIR NO<sub>x</sub> allowances.* When recording the allocation of CAIR NO<sub>x</sub> allowances for a CAIR NO<sub>x</sub> unit in a compliance account, the Administrator will assign each CAIR NO<sub>x</sub> allowance a unique identification number that will include digits identifying the year of the control period for which the CAIR NO<sub>x</sub> allowance is allocated.

**§ 97.154 Compliance with CAIR NO<sub>x</sub> emissions limitation.**

(a) *Allowance transfer deadline.* The CAIR NO<sub>x</sub> allowances are available to be deducted for compliance with a source's CAIR NO<sub>x</sub> emissions limitation

for a control period in a given calendar year only if the CAIR NO<sub>x</sub> allowances:

(1) Were allocated for the control period in the year or a prior year; and

(2) Are held in the compliance account as of the allowance transfer deadline for the control period or are transferred into the compliance account by a CAIR NO<sub>x</sub> allowance transfer correctly submitted for recordation under §§ 97.160 and 97.161 by the allowance transfer deadline for the control period.

(b) *Deductions for compliance.* Following the recordation, in accordance with § 97.161, of CAIR NO<sub>x</sub> allowance transfers submitted for recordation in a source's compliance account by the allowance transfer deadline for a control period, the Administrator will deduct from the compliance account CAIR NO<sub>x</sub> allowances available under paragraph (a) of this section in order to determine whether the source meets the CAIR NO<sub>x</sub> emissions limitation for the control period, as follows:

(1) Until the amount of CAIR NO<sub>x</sub> allowances deducted equals the number of tons of total nitrogen oxides emissions, determined in accordance with subpart HH of this part, from all CAIR NO<sub>x</sub> units at the source for the control period; or

(2) If there are insufficient CAIR NO<sub>x</sub> allowances to complete the deductions in paragraph (b)(1) of this section, until no more CAIR NO<sub>x</sub> allowances available under paragraph (a) of this section remain in the compliance account.

(c)(1) *Identification of CAIR NO<sub>x</sub> allowances by serial number.* The CAIR authorized account representative for a source's compliance account may request that specific CAIR NO<sub>x</sub> allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with paragraph (b) or (d) of this section. Such request shall be submitted to the Administrator by the allowance transfer deadline for the control period and include, in a format prescribed by the Administrator, the identification of the CAIR NO<sub>x</sub> source and the appropriate serial numbers.

(2) *First-in, first-out.* The Administrator will deduct CAIR NO<sub>x</sub> allowances under paragraph (b) or (d) of this section from the source's compliance account, in the absence of an identification or in the case of a partial identification of CAIR NO<sub>x</sub> allowances by serial number under paragraph (c)(1) of this section, on a first-in, first-out (FIFO) accounting basis in the following order:

(i) Any CAIR NO<sub>x</sub> allowances that were allocated to the units at the source, in the order of recordation; and then

(ii) Any CAIR NO<sub>x</sub> allowances that were allocated to any entity and transferred and recorded in the compliance account pursuant to subpart GG of this part, in the order of recordation.

(d) *Deductions for excess emissions.*

(1) After making the deductions for compliance under paragraph (b) of this section for a control period in a calendar year in which the CAIR NO<sub>x</sub> source has excess emissions, the Administrator will deduct from the source's compliance account an amount of CAIR NO<sub>x</sub> allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of tons of the source's excess emissions.

(2) Any allowance deduction required under paragraph (d)(1) of this section shall not affect the liability of the owners and operators of the CAIR NO<sub>x</sub> source or the CAIR NO<sub>x</sub> units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violations, as ordered under the Clean Air Act or applicable State law.

(e) *Recordation of deductions.* The Administrator will record in the appropriate compliance account all deductions from such an account under paragraphs (b) and (d) of this section and subpart II.

(f) *Administrator's action on submissions.* (1) The Administrator may review and conduct independent audits concerning any submission under the CAIR NO<sub>x</sub> Annual Trading Program and make appropriate adjustments of the information in the submissions.

(2) The Administrator may deduct CAIR NO<sub>x</sub> allowances from or transfer CAIR NO<sub>x</sub> allowances to a source's compliance account based on the information in the submissions, as adjusted under paragraph (f)(1) of this section, and record such deductions and transfers.

**§ 97.155 Banking.**

(a) CAIR NO<sub>x</sub> allowances may be banked for future use or transfer in a compliance account or a general account in accordance with paragraph (b) of this section.

(b) Any CAIR NO<sub>x</sub> allowance that is held in a compliance account or a general account will remain in such account unless and until the CAIR NO<sub>x</sub> allowance is deducted or transferred under § 97.142, § 97.154, § 97.156, or subpart GG or II of this part.

**§ 97.156 Account error.**

The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any CAIR NO<sub>x</sub> Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the CAIR authorized account representative for the account.

**§ 97.157 Closing of general accounts.**

(a) The CAIR authorized account representative of a general account may submit to the Administrator a request to close the account, which shall include a correctly submitted allowance transfer under §§ 97.160 and 97.161 for any CAIR NO<sub>x</sub> allowances in the account to one or more other CAIR NO<sub>x</sub> Allowance Tracking System accounts.

(b) If a general account has no allowance transfers in or out of the account for a 12-month period or longer and does not contain any CAIR NO<sub>x</sub> allowances, the Administrator may notify the CAIR authorized account representative for the account that the account will be closed following 20 business days after the notice is sent. The account will be closed after the 20-day period unless, before the end of the 20-day period, the Administrator receives a correctly submitted transfer of CAIR NO<sub>x</sub> allowances into the account under §§ 97.160 and 97.161 or a statement submitted by the CAIR authorized account representative demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.

**Subpart GG—CAIR NO<sub>x</sub> Allowance Transfers****§ 97.160 Submission of CAIR NO<sub>x</sub> allowance transfers.**

A CAIR authorized account representative seeking recordation of a CAIR NO<sub>x</sub> allowance transfer shall submit the transfer to the Administrator. To be considered correctly submitted, the CAIR NO<sub>x</sub> allowance transfer shall include the following elements, in a format specified by the Administrator:

- (a) The account numbers for both the transferor and transferee accounts;
- (b) The serial number of each CAIR NO<sub>x</sub> allowance that is in the transferor account and is to be transferred; and
- (c) The name and signature of the CAIR authorized account representative of the transferor account and the date signed.

**§ 97.161 EPA recordation.**

(a) Within 5 business days (except as provided in paragraph (b) of this section) of receiving a CAIR NO<sub>x</sub>

allowance transfer, the Administrator will record a CAIR NO<sub>x</sub> allowance transfer by moving each CAIR NO<sub>x</sub> allowance from the transferor account to the transferee account as specified by the request, provided that:

(1) The transfer is correctly submitted under § 97.160; and

(2) The transferor account includes each CAIR NO<sub>x</sub> allowance identified by serial number in the transfer.

(b) A CAIR NO<sub>x</sub> allowance transfer that is submitted for recordation after the allowance transfer deadline for a control period and that includes any CAIR NO<sub>x</sub> allowances allocated for any control period before such allowance transfer deadline will not be recorded until after the Administrator completes the deductions under § 97.154 for the control period immediately before such allowance transfer deadline.

(c) Where a CAIR NO<sub>x</sub> allowance transfer submitted for recordation fails to meet the requirements of paragraph (a) of this section, the Administrator will not record such transfer.

**§ 97.162 Notification.**

(a) *Notification of recordation.* Within 5 business days of recordation of a CAIR NO<sub>x</sub> allowance transfer under § 97.161, the Administrator will notify the CAIR authorized account representatives of both the transferor and transferee accounts.

(b) *Notification of non-recordation.* Within 10 business days of receipt of a CAIR NO<sub>x</sub> allowance transfer that fails to meet the requirements of § 97.161(a), the Administrator will notify the CAIR authorized account representatives of both accounts subject to the transfer of:

- (1) A decision not to record the transfer, and
- (2) The reasons for such non-recordation.

(c) Nothing in this section shall preclude the submission of a CAIR NO<sub>x</sub> allowance transfer for recordation following notification of non-recordation.

**Subpart HH—Monitoring and Reporting****§ 97.170 General requirements.**

The owners and operators, and to the extent applicable, the CAIR designated representative, of a CAIR NO<sub>x</sub> unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this subpart and in subpart H of part 75 of this chapter. For purposes of complying with such requirements, the definitions in § 97.102 and in § 72.2 of this chapter shall apply, and the terms “affected unit,” “designated representative,” and

“continuous emission monitoring system” or “CEMS”) in part 75 of this chapter shall be deemed to refer to the terms “CAIR NO<sub>x</sub> unit,” “CAIR designated representative,” and “continuous emission monitoring system” (or “CEMS”) respectively, as defined in § 97.102. The owner or operator of a unit that is not a CAIR NO<sub>x</sub> unit but that is monitored under § 75.72(b)(2)(ii) of this chapter shall comply with the same monitoring, recordkeeping, and reporting requirements as a CAIR NO<sub>x</sub> unit.

(a) *Requirements for installation, certification, and data accounting.* The owner or operator of each CAIR NO<sub>x</sub> unit shall:

(1) Install all monitoring systems required under this subpart for monitoring NO<sub>x</sub> mass emissions and individual unit heat input (including all systems required to monitor NO<sub>x</sub> emission rate, NO<sub>x</sub> concentration, stack gas moisture content, stack gas flow rate, CO<sub>2</sub> or O<sub>2</sub> concentration, and fuel flow rate, as applicable, in accordance with (§§ 75.71 and 75.72 of this chapter);

(2) Successfully complete all certification tests required under § 97.171 and meet all other requirements of this subpart and part 75 of this chapter applicable to the monitoring systems under paragraph (a)(1) of this section; and

(3) Record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

(b) *Compliance deadlines.* Except as provided in paragraph (e) of this section, the owner or operator shall meet the monitoring system certification and other requirements of paragraphs (a)(1) and (2) of this section on or before the following dates. The owner or operator shall record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section on and after the following dates.

(1) For the owner or operator of a CAIR NO<sub>x</sub> unit that commences commercial operation before July 1, 2007, by January 1, 2008.

(2) For the owner or operator of a CAIR NO<sub>x</sub> unit that commences commercial operation on or after July 1, 2007, by the later of the following dates:

- (i) January 1, 2008; or
- (ii) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.

(3) For the owner or operator of a CAIR NO<sub>x</sub> unit for which construction of a new stack or flue or installation of add-on NO<sub>x</sub> emission controls is completed after the applicable deadline

under paragraph (b)(1), (2), (4), or (5) of this section, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls.

(4) Notwithstanding the dates in paragraphs (b)(1) and (2) of this section, for the owner or operator of a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart II of this part, by the date specified in § 97.184(b).

(5) Notwithstanding the dates in paragraphs (b)(1) and (2) of this section, for the owner or operator of a CAIR NO<sub>x</sub> opt-in unit under subpart II of this part, by the date on which the CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program as provided in § 97.184(g).

(c) *Reporting data.* The owner or operator of a CAIR NO<sub>x</sub> unit that does not meet the applicable compliance date set forth in paragraph (b) of this section for any monitoring system under paragraph (a)(1) of this section shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for NO<sub>x</sub> concentration, NO<sub>x</sub> emission rate, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine NO<sub>x</sub> mass emissions and heat input in accordance with § 75.31(b)(2) or (c)(3) of this chapter, section 2.4 of appendix D to part 75 of this chapter, or section 2.5 of appendix E to part 75 of this chapter, as applicable.

(d) *Prohibitions.* (1) No owner or operator of a CAIR NO<sub>x</sub> unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this subpart without having obtained prior written approval in accordance with § 97.175.

(2) No owner or operator of a CAIR NO<sub>x</sub> unit shall operate the unit so as to discharge, or allow to be discharged, NO<sub>x</sub> emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(3) No owner or operator of a CAIR NO<sub>x</sub> unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording NO<sub>x</sub> mass emissions discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance

testing, or maintenance is performed in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(4) No owner or operator of a CAIR NO<sub>x</sub> unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under this subpart, except under any one of the following circumstances:

(i) During the period that the unit is covered by an exemption under § 97.105 that is in effect;

(ii) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this subpart and part 75 of this chapter, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(iii) The CAIR designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with § 97.171(d)(3)(i).

(e) *Long-term cold storage.* The owner or operator of a CAIR NO<sub>x</sub> unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

#### **§ 97.171 Initial certification and recertification procedures.**

(a) The owner or operator of a CAIR NO<sub>x</sub> unit shall be exempt from the initial certification requirements of this section for a monitoring system under § 97.170(a)(1) if the following conditions are met:

(1) The monitoring system has been previously certified in accordance with part 75 of this chapter; and

(2) The applicable quality-assurance and quality-control requirements of § 75.21 of this chapter and appendix B, appendix D, and appendix E to part 75 of this chapter are fully met for the certified monitoring system described in paragraph (a)(1) of this section.

(b) The recertification provisions of this section shall apply to a monitoring system under § 97.170(a)(1) exempt from initial certification requirements under paragraph (a) of this section.

(c) If the Administrator has previously approved a petition under § 75.17(a) or (b) of this chapter for apportioning the NO<sub>x</sub> emission rate measured in a common stack or a petition under § 75.66 of this chapter for an alternative to a requirement in § 75.12 or § 75.17 of this chapter, the CAIR designated

representative shall resubmit the petition to the Administrator under § 97.175 to determine whether the approval applies under the CAIR NO<sub>x</sub> Annual Trading Program.

(d) Except as provided in paragraph (a) of this section, the owner or operator of a CAIR NO<sub>x</sub> unit shall comply with the following initial certification and recertification procedures for a continuous monitoring system (*i.e.*, a continuous emission monitoring system and an excepted monitoring system under appendices D and E to part 75 of this chapter) under § 97.170(a)(1). The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology under § 75.19 of this chapter or that qualifies to use an alternative monitoring system under subpart E of part 75 of this chapter shall comply with the procedures in paragraph (e) or (f) of this section respectively.

(1) *Requirements for initial certification.* The owner or operator shall ensure that each continuous monitoring system under § 97.170(a)(1) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under § 75.20 of this chapter by the applicable deadline in § 97.170(b). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this subpart in a location where no such monitoring system was previously installed, initial certification in accordance with § 75.20 of this chapter is required.

(2) *Requirements for recertification.* Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under § 97.170(a)(1) that may significantly affect the ability of the system to accurately measure or record NO<sub>x</sub> mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of § 75.21 of this chapter or appendix B to part 75 of this chapter, the owner or operator shall recertify the monitoring system in accordance with § 75.20(b) of this chapter. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with § 75.20(b) of this chapter. Examples of changes to a continuous emission monitoring system that require recertification include

replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter system, and any excepted NO<sub>x</sub> monitoring system under appendix E to part 75 of this chapter, under § 97.170(a)(1) are subject to the recertification requirements in § 75.20(g)(6) of this chapter.

(3) *Approval process for initial certification and recertification.* Paragraphs (d)(3)(i) through (iv) of this section apply to both initial certification and recertification of a continuous monitoring system under § 97.170(a)(1). For recertifications, replace the words "certification" and "initial certification" with the word "recertification", replace the word "certified" with the word "recertified", and follow the procedures in §§ 75.20(b)(5) and (g)(7) of this chapter in lieu of the procedures in paragraph (d)(3)(v) of this section.

(i) *Notification of certification.* The CAIR designated representative shall submit to the appropriate EPA Regional Office and the Administrator written notice of the dates of certification testing, in accordance with § 97.173.

(ii) *Certification application.* The CAIR designated representative shall submit to the Administrator a certification application for each monitoring system. A complete certification application shall include the information specified in § 75.63 of this chapter.

(iii) *Provisional certification date.* The provisional certification date for a monitoring system shall be determined in accordance with § 75.20(a)(3) of this chapter. A provisionally certified monitoring system may be used under the CAIR NO<sub>x</sub> Annual Trading Program for a period not to exceed 120 days after receipt by the Administrator of the complete certification application for the monitoring system under paragraph (d)(3)(ii) of this section. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of part 75 of this chapter, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Administrator does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Administrator.

(iv) *Certification application approval process.* The Administrator will issue a written notice of approval or disapproval of the certification application to the owner or operator

within 120 days of receipt of the complete certification application under paragraph (d)(3)(ii) of this section. In the event the Administrator does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of part 75 of this chapter and is included in the certification application will be deemed certified for use under the CAIR NO<sub>x</sub> Annual Trading Program.

(A) *Approval notice.* If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of part 75 of this chapter, then the Administrator will issue a written notice of approval of the certification application within 120 days of receipt.

(B) *Incomplete application notice.* If the certification application is not complete, then the Administrator will issue a written notice of incompleteness that sets a reasonable date by which the CAIR designated representative must submit the additional information required to complete the certification application. If the CAIR designated representative does not comply with the notice of incompleteness by the specified date, then the Administrator may issue a notice of disapproval under paragraph (d)(3)(iv)(C) of this section. The 120-day review period shall not begin before receipt of a complete certification application.

(C) *Disapproval notice.* If the certification application shows that any monitoring system does not meet the performance requirements of part 75 of this chapter or if the certification application is incomplete and the requirement for disapproval under paragraph (d)(3)(iv)(B) of this section is met, then the Administrator will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Administrator and the data measured and recorded by each uncertified monitoring system shall not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under § 75.20(a)(3) of this chapter). The owner or operator shall follow the procedures for loss of certification in paragraph (d)(3)(v) of this section for each monitoring system that is disapproved for initial certification.

(D) *Audit decertification.* The Administrator may issue a notice of disapproval of the certification status of a monitor in accordance with § 97.172(b).

(v) *Procedures for loss of certification.* If the Administrator issues a notice of disapproval of a certification application under paragraph (d)(3)(iv)(C) of this section or a notice of disapproval of certification status under paragraph (d)(3)(iv)(D) of this section, then:

(A) The owner or operator shall substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under § 75.20(a)(4)(iii), § 75.20(g)(7), or § 75.21(e) of this chapter and continuing until the applicable date and hour specified under § 75.20(a)(5)(i) or (g)(7) of this chapter:

(1) For a disapproved NO<sub>x</sub> emission rate (i.e., NO<sub>x</sub>-diluent) system, the maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter.

(2) For a disapproved NO<sub>x</sub> pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential concentration of NO<sub>x</sub> and the maximum potential flow rate, as defined in sections 2.1.2.1 and 2.1.4.1 of appendix A to part 75 of this chapter.

(3) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub> concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to part 75 of this chapter.

(4) For a disapproved fuel flowmeter system, the maximum potential fuel flow rate, as defined in section 2.4.2.1 of appendix D to part 75 of this chapter.

(5) For a disapproved excepted NO<sub>x</sub> monitoring system under appendix E to part 75 of this chapter, the fuel-specific maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter.

(B) The CAIR designated representative shall submit a notification of certification retest dates and a new certification application in accordance with paragraphs (d)(3)(i) and (ii) of this section.

(C) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Administrator's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.

(e) *Initial certification and recertification procedures for units using the low mass emission excepted methodology under § 75.19 of this chapter.* The owner or operator of a unit qualified to use the low mass emissions

(LME) excepted methodology under § 75.19 of this chapter shall meet the applicable certification and recertification requirements in §§ 75.19(a)(2) and 75.20(h) of this chapter. If the owner or operator of such a unit elects to certify a fuel flowmeter system for heat input determination, the owner or operator shall also meet the certification and recertification requirements in § 75.20(g) of this chapter.

(f) *Certification/recertification procedures for alternative monitoring systems.* The CAIR designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator under subpart E of part 75 of this chapter shall comply with the applicable notification and application procedures of § 75.20(f) of this chapter.

#### § 97.172 Out of control periods.

(a) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of part 75 of this chapter, data shall be substituted using the applicable missing data procedures in subpart D or subpart H of, or appendix D or appendix E to, part 75 of this chapter.

(b) *Audit decertification.* Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under § 97.171 or the applicable provisions of part 75 of this chapter, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the permitting authority or the Administrator. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable

initial certification or recertification procedures in § 97.171 for each disapproved monitoring system.

#### § 97.173 Notifications.

The CAIR designated representative for a CAIR NO<sub>x</sub> unit shall submit written notice to the Administrator in accordance with § 75.61 of this chapter.

#### § 97.174 Recordkeeping and reporting.

(a) *General provisions.* The CAIR designated representative shall comply with all recordkeeping and reporting requirements in this section, the applicable recordkeeping and reporting requirements under § 75.73 of this chapter, and the requirements of § 97.110(e)(1).

(b) *Monitoring plans.* The owner or operator of a CAIR NO<sub>x</sub> unit shall comply with requirements of § 75.73(c) and (e) of this chapter and, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart II of this part, §§ 97.183 and 97.184(a).

(c) *Certification applications.* The CAIR designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under § 97.171, including the information required under § 75.63 of this chapter.

(d) *Quarterly reports.* The CAIR designated representative shall submit quarterly reports, as follows:

(1) The CAIR designated representative shall report the NO<sub>x</sub> mass emissions data and heat input data for the CAIR NO<sub>x</sub> unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

(i) For a unit that commences commercial operation before July 1, 2007, the calendar quarter covering January 1, 2008 through March 31, 2008;

(ii) For a unit that commences commercial operation on or after July 1, 2007, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under § 97.170(b), unless that quarter is the third or fourth quarter of 2007, in which case reporting shall commence in the quarter covering January 1, 2008 through March 31, 2008;

(iii) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart II of this part, the calendar quarter

corresponding to the date specified in § 97.184(b); and

(iv) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a CAIR NO<sub>x</sub> opt-in unit under subpart II of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program as provided in § 97.184(g).

(2) The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in § 75.73(f) of this chapter.

(3) For CAIR NO<sub>x</sub> units that are also subject to an Acid Rain emissions limitation or the CAIR NO<sub>x</sub> Ozone Season Trading Program, CAIR SO<sub>2</sub> Trading Program, or Hg Budget Trading Program, quarterly reports shall include the applicable data and information required by subparts F through I of part 75 of this chapter as applicable, in addition to the NO<sub>x</sub> mass emission data, heat input data, and other information required by this subpart.

(e) *Compliance certification.* The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(1) The monitoring data submitted were recorded in accordance with the applicable requirements of this subpart and part 75 of this chapter, including the quality assurance procedures and specifications; and

(2) For a unit with add-on NO<sub>x</sub> emission controls and for all hours where NO<sub>x</sub> data are substituted in accordance with § 75.34(a)(1) of this chapter, the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to part 75 of this chapter and the substitute data values do not systematically underestimate NO<sub>x</sub> emissions.

#### § 97.175 Petitions.

The CAIR designated representative of a CAIR NO<sub>x</sub> unit may submit a petition under § 75.66 of this chapter to the Administrator requesting approval to apply an alternative to any requirement of this subpart. Application of an alternative to any requirement of this subpart is in accordance with this

subpart only to the extent that the petition is approved in writing by the Administrator, in consultation with the permitting authority.

## Subpart II—CAIR NO<sub>x</sub> Opt-In Units

### § 97.180 Applicability.

A CAIR NO<sub>x</sub> opt-in unit must be a unit that:

- (a) Is located in a State that submits, and for which the Administrator approves, a State implementation plan revision in accordance with § 51.123(p)(3)(i), (ii), or (iii) of this chapter establishing procedures concerning CAIR opt-in units;
- (b) Is not a CAIR NO<sub>x</sub> unit under § 97.104 and is not covered by a retired unit exemption under § 97.105 that is in effect;
- (c) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect;
- (d) Has or is required or qualified to have a title V operating permit or other federally enforceable permit; and
- (e) Vents all of its emissions to a stack and can meet the monitoring, recordkeeping, and reporting requirements of subpart HH of this part.

### § 97.181 General.

(a) Except as otherwise provided in §§ 97.101 through 97.104, §§ 97.106 through 97.108, and subparts BB and CC and subparts FF through HH of this part, a CAIR NO<sub>x</sub> opt-in unit shall be treated as a CAIR NO<sub>x</sub> unit for purposes of applying such sections and subparts of this part.

(b) Solely for purposes of applying, as provided in this subpart, the requirements of subpart HH of this part to a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, such unit shall be treated as a CAIR NO<sub>x</sub> unit before issuance of a CAIR opt-in permit for such unit.

### § 97.182 CAIR designated representative.

Any CAIR NO<sub>x</sub> opt-in unit, and any unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, located at the same source as one or more CAIR NO<sub>x</sub> units shall have the same CAIR designated representative and alternate CAIR designated representative as such CAIR NO<sub>x</sub> units.

### § 97.183 Applying for CAIR opt-in permit.

(a) *Applying for initial CAIR opt-in permit.* The CAIR designated representative of a unit meeting the requirements for a CAIR NO<sub>x</sub> opt-in

unit in § 97.180 may apply for an initial CAIR opt-in permit at any time, except as provided under § 97.186(f) and (g), and, in order to apply, must submit the following:

- (1) A complete CAIR permit application under § 97.122;
- (2) A certification, in a format specified by the permitting authority, that the unit:
  - (i) Is not a CAIR NO<sub>x</sub> unit under § 97.104 and is not covered by a retired unit exemption under § 97.105 that is in effect;
  - (ii) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect;
  - (iii) Vents all of its emissions to a stack; and
  - (iv) Has documented heat input for more than 876 hours during the 6 months immediately preceding submission of the CAIR permit application under § 97.122;
- (3) A monitoring plan in accordance with subpart HH of this part;
- (4) A complete certificate of representation under § 97.113 consistent with § 97.182, if no CAIR designated representative has been previously designated for the source that includes the unit; and
- (5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR NO<sub>x</sub> allowances under § 97.188(b) or § 97.188(c) (subject to the conditions in §§ 97.184(h) and 97.186(g)), to the extent such allocation is provided in a State implementation plan revision submitted in accordance with § 51.123(p)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator. If allocation under § 97.188(c) is requested, this statement shall include a statement that the owners and operators of the unit intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

(b) *Duty to reapply.* (1) The CAIR designated representative of a CAIR NO<sub>x</sub> opt-in unit shall submit a complete CAIR permit application under § 97.122 to renew the CAIR opt-in unit permit in accordance with the permitting authority's regulations for title V operating permits, or the permitting authority's regulations for other federally enforceable permits if applicable, addressing permit renewal.

(2) Unless the permitting authority issues a notification of acceptance of withdrawal of the CAIR NO<sub>x</sub> opt-in unit from the CAIR NO<sub>x</sub> Annual Trading Program in accordance with § 97.186 or the unit becomes a CAIR NO<sub>x</sub> unit

under § 97.104, the CAIR NO<sub>x</sub> opt-in unit shall remain subject to the requirements for a CAIR NO<sub>x</sub> opt-in unit, even if the CAIR designated representative for the CAIR NO<sub>x</sub> opt-in unit fails to submit a CAIR permit application that is required for renewal of the CAIR opt-in permit under paragraph (b)(1) of this section.

### § 97.184 Opt-in process.

The permitting authority will issue or deny a CAIR opt-in permit for a unit for which an initial application for a CAIR opt-in permit under § 97.183 is submitted in accordance with the following, to the extent provided in a State implementation plan revision submitted in accordance with § 51.123(p)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(a) *Interim review of monitoring plan.* The permitting authority and the Administrator will determine, on an interim basis, the sufficiency of the monitoring plan accompanying the initial application for a CAIR opt-in permit under § 97.183. A monitoring plan is sufficient, for purposes of interim review, if the plan appears to contain information demonstrating that the NO<sub>x</sub> emissions rate and heat input of the unit and all other applicable parameters are monitored and reported in accordance with subpart HH of this part. A determination of sufficiency shall not be construed as acceptance or approval of the monitoring plan.

(b) *Monitoring and reporting.* (1)(i) If the permitting authority and the Administrator determine that the monitoring plan is sufficient under paragraph (a) of this section, the owner or operator shall monitor and report the NO<sub>x</sub> emissions rate and the heat input of the unit and all other applicable parameters, in accordance with subpart HH of this part, starting on the date of certification of the appropriate monitoring systems under subpart HH of this part and continuing until a CAIR opt-in permit is denied under § 97.184(f) or, if a CAIR opt-in permit is issued, the date and time when the unit is withdrawn from the CAIR NO<sub>x</sub> Annual Trading Program in accordance with § 97.186.

(ii) The monitoring and reporting under paragraph (b)(1)(i) of this section shall include the entire control period immediately before the date on which the unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g), during which period monitoring system availability must not be less than 90 percent under subpart HH of this part and the unit must be in full compliance with any applicable State or Federal



emissions or emissions-related requirements.

(2) To the extent the NO<sub>x</sub> emissions rate and the heat input of the unit are monitored and reported in accordance with subpart HH of this part for one or more control periods, in addition to the control period under paragraph (b)(1)(ii) of this section, during which control periods monitoring system availability is not less than 90 percent under subpart HH of this part and the unit is in full compliance with any applicable State or Federal emissions or emissions-related requirements and which control periods begin not more than 3 years before the unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g), such information shall be used as provided in paragraphs (c) and (d) of this section.

(c) *Baseline heat input.* The unit's baseline heat rate shall equal:

(1) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's total heat input (in mmBtu) for the control period; or

(2) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, the average of the amounts of the unit's total heat input (in mmBtu) for the control periods under paragraphs (b)(1)(ii) and (2) of this section.

(d) *Baseline NO<sub>x</sub> emission rate.* The unit's baseline NO<sub>x</sub> emission rate shall equal:

(1) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for the control period;

(2) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit does not have add-on NO<sub>x</sub> emission controls during any such control periods, the average of the amounts of the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for the control periods under paragraphs (b)(1)(ii) and (2) of this section; or

(3) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit has add-on NO<sub>x</sub> emission controls during any such control periods, the average of the amounts of the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for

such control periods during which the unit has add-on NO<sub>x</sub> emission controls.

(e) *Issuance of CAIR opt-in permit.* After calculating the baseline heat input and the baseline NO<sub>x</sub> emissions rate for the unit under paragraphs (c) and (d) of this section and if the permitting authority determines that the CAIR designated representative shows that the unit meets the requirements for a CAIR NO<sub>x</sub> opt-in unit in § 97.180 and meets the elements certified in § 97.183(a)(2), the permitting authority will issue a CAIR opt-in permit. The permitting authority will provide a copy of the CAIR opt-in permit to the Administrator, who will then establish a compliance account for the source that includes the CAIR NO<sub>x</sub> opt-in unit unless the source already has a compliance account.

(f) *Issuance of denial of CAIR opt-in permit.* Notwithstanding paragraphs (a) through (e) of this section, if at any time before issuance of a CAIR opt-in permit for the unit, the permitting authority determines that the CAIR designated representative fails to show that the unit meets the requirements for a CAIR NO<sub>x</sub> opt-in unit in § 97.180 or meets the elements certified in § 97.183(a)(2), the permitting authority will issue a denial of a CAIR opt-in permit for the unit.

(g) *Date of entry into CAIR NO<sub>x</sub> Annual Trading Program.* A unit for which an initial CAIR opt-in permit is issued by the permitting authority shall become a CAIR NO<sub>x</sub> opt-in unit, and a CAIR NO<sub>x</sub> unit, as of the later of January 1, 2009 or January 1 of the first control period during which such CAIR opt-in permit is issued.

(h) *Repowered CAIR NO<sub>x</sub> opt-in unit.* (1) If CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit providing for, allocation to a CAIR NO<sub>x</sub> opt-in unit of CAIR NO<sub>x</sub> allowances under § 97.188(c) and such unit is repowered after its date of entry into the CAIR NO<sub>x</sub> Annual Trading Program under paragraph (g) of this section, the repowered unit shall be treated as a CAIR NO<sub>x</sub> opt-in unit replacing the original CAIR NO<sub>x</sub> opt-in unit, as of the date of start-up of the repowered unit's combustion chamber.

(2) Notwithstanding paragraphs (c) and (d) of this section, as of the date of start-up under paragraph (h)(1) of this section, the repowered unit shall be deemed to have the same date of commencement of operation, date of commencement of commercial operation, baseline heat input, and baseline NO<sub>x</sub> emission rate as the original CAIR NO<sub>x</sub> opt-in unit, and the original CAIR NO<sub>x</sub> opt-in unit shall no

longer be treated as a CAIR NO<sub>x</sub> opt-in unit or a CAIR NO<sub>x</sub> unit.

#### § 97.185 CAIR opt-in permit contents.

(a) Each CAIR opt-in permit will contain:

(1) All elements required for a complete CAIR permit application under § 97.122;

(2) The certification in § 97.183(a)(2);

(3) The unit's baseline heat input under § 97.184(c);

(4) The unit's baseline NO<sub>x</sub> emission rate under § 97.184(d);

(5) A statement whether the unit is to be allocated CAIR NO<sub>x</sub> allowances under § 97.188(b) or § 97.188(c) (subject to the conditions in §§ 97.184(h) and 97.186(g));

(6) A statement that the unit may withdraw from the CAIR NO<sub>x</sub> Annual Trading Program only in accordance with § 97.186; and

(7) A statement that the unit is subject to, and the owners and operators of the unit must comply with, the requirements of § 97.187.

(b) Each CAIR opt-in permit is deemed to incorporate automatically the definitions of terms under § 97.102 and, upon recordation by the Administrator under subpart FF or GG of this part or this subpart, every allocation, transfer, or deduction of CAIR NO<sub>x</sub> allowances to or from the compliance account of the source that includes a CAIR NO<sub>x</sub> opt-in unit covered by the CAIR opt-in permit.

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR NO<sub>x</sub> opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

#### § 97.186 Withdrawal from CAIR NO<sub>x</sub> Annual Trading Program.

Except as provided under paragraph (g) of this section, a CAIR NO<sub>x</sub> opt-in unit may withdraw from the CAIR NO<sub>x</sub> Annual Trading Program, but only if the permitting authority issues a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> opt-in unit of the acceptance of the withdrawal of the CAIR NO<sub>x</sub> opt-in unit in accordance with paragraph (d) of this section.

(a) *Requesting withdrawal.* In order to withdraw a CAIR NO<sub>x</sub> opt-in unit from the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR designated representative of the CAIR NO<sub>x</sub> opt-in unit shall submit to the permitting authority a request to withdraw effective as of midnight of December 31 of a specified calendar year, which date must be at least 4 years after December 31 of the year of entry into the CAIR NO<sub>x</sub> Annual Trading

Program under § 97.184(g). The request must be submitted no later than 90 days before the requested effective date of withdrawal.

(b) *Conditions for withdrawal.* Before a CAIR NO<sub>x</sub> opt-in unit covered by a request under paragraph (a) of this section may withdraw from the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR opt-in permit may be terminated under paragraph (e) of this section, the following conditions must be met:

(1) For the control period ending on the date on which the withdrawal is to be effective, the source that includes the CAIR NO<sub>x</sub> opt-in unit must meet the requirement to hold CAIR NO<sub>x</sub> allowances under § 97.106(c) and cannot have any excess emissions.

(2) After the requirement for withdrawal under paragraph (b)(1) of this section is met, the Administrator will deduct from the compliance account of the source that includes the CAIR NO<sub>x</sub> opt-in unit CAIR NO<sub>x</sub> allowances equal in amount to and allocated for the same or a prior control period as any CAIR NO<sub>x</sub> allowances allocated to the CAIR NO<sub>x</sub> opt-in unit under § 97.188 for any control period for which the withdrawal is to be effective. If there are no remaining CAIR NO<sub>x</sub> units at the source, the Administrator will close the compliance account, and the owners and operators of the CAIR NO<sub>x</sub> opt-in unit may submit a CAIR NO<sub>x</sub> allowance transfer for any remaining CAIR NO<sub>x</sub> allowances to another CAIR NO<sub>x</sub> Allowance Tracking System in accordance with subpart GG of this part.

(c) *Notification.* (1) After the requirements for withdrawal under paragraphs (a) and (b) of this section are met (including deduction of the full amount of CAIR NO<sub>x</sub> allowances required), the permitting authority will issue a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> opt-in unit of the acceptance of the withdrawal of the CAIR NO<sub>x</sub> opt-in unit as of midnight on December 31 of the calendar year for which the withdrawal was requested.

(2) If the requirements for withdrawal under paragraphs (a) and (b) of this section are not met, the permitting authority will issue a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> opt-in unit that the CAIR NO<sub>x</sub> opt-in unit's request to withdraw is denied. Such CAIR NO<sub>x</sub> opt-in unit shall continue to be a CAIR NO<sub>x</sub> opt-in unit.

(d) *Permit amendment.* After the permitting authority issues a notification under paragraph (c)(1) of this section that the requirements for withdrawal have been met, the

permitting authority will revise the CAIR permit covering the CAIR NO<sub>x</sub> opt-in unit to terminate the CAIR opt-in permit for such unit as of the effective date specified under paragraph (c)(1) of this section. The unit shall continue to be a CAIR NO<sub>x</sub> opt-in unit until the effective date of the termination and shall comply with all requirements under the CAIR NO<sub>x</sub> Annual Trading Program concerning any control periods for which the unit is a CAIR NO<sub>x</sub> opt-in unit, even if such requirements arise or must be complied with after the withdrawal takes effect.

(e) *Reapplication upon failure to meet conditions of withdrawal.* If the permitting authority denies the CAIR NO<sub>x</sub> opt-in unit's request to withdraw, the CAIR designated representative may submit another request to withdraw in accordance with paragraphs (a) and (b) of this section.

(f) *Ability to reapply to the CAIR NO<sub>x</sub> Annual Trading Program.* Once a CAIR NO<sub>x</sub> opt-in unit withdraws from the CAIR NO<sub>x</sub> Annual Trading Program and its CAIR opt-in permit is terminated under this section, the CAIR designated representative may not submit another application for a CAIR opt-in permit under § 97.183 for such CAIR NO<sub>x</sub> opt-in unit before the date that is 4 years after the date on which the withdrawal became effective. Such new application for a CAIR opt-in permit will be treated as an initial application for a CAIR opt-in permit under § 97.184.

(g) *Inability to withdraw.* Notwithstanding paragraphs (a) through (f) of this section, a CAIR NO<sub>x</sub> opt-in unit shall not be eligible to withdraw from the CAIR NO<sub>x</sub> Annual Trading Program if the CAIR designated representative of the CAIR NO<sub>x</sub> opt-in unit requests, and the permitting authority issues a CAIR NO<sub>x</sub> opt-in permit providing for, allocation to the CAIR NO<sub>x</sub> opt-in unit of CAIR NO<sub>x</sub> allowances under § 97.188(c).

#### **§ 97.187 Change in regulatory status.**

(a) *Notification.* If a CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104, then the CAIR designated representative shall notify in writing the permitting authority and the Administrator of such change in the CAIR NO<sub>x</sub> opt-in unit's regulatory status, within 30 days of such change.

(b) *Permitting authority's and Administrator's actions.* (1) If a CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104, the permitting authority will revise the CAIR NO<sub>x</sub> opt-in unit's CAIR opt-in permit to meet the requirements of a CAIR permit under § 97.123, and remove the CAIR opt-in permit provisions, as of the date on

which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104.

(2)(i) The Administrator will deduct from the compliance account of the source that includes the CAIR NO<sub>x</sub> opt-in unit that becomes a CAIR NO<sub>x</sub> unit under § 97.104, CAIR NO<sub>x</sub> allowances equal in amount to and allocated for the same or a prior control period as:

(A) Any CAIR NO<sub>x</sub> allowances allocated to the CAIR NO<sub>x</sub> opt-in unit under § 97.188 for any control period after the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104; and

(B) If the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104 is not December 31, the CAIR NO<sub>x</sub> allowances allocated to the CAIR NO<sub>x</sub> opt-in unit under § 97.188 for the control period that includes the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104, multiplied by the ratio of the number of days, in the control period, starting with the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104 divided by the total number of days in the control period and rounded to the nearest whole allowance as appropriate.

(ii) The CAIR designated representative shall ensure that the compliance account of the source that includes the CAIR NO<sub>x</sub> unit that becomes a CAIR NO<sub>x</sub> unit under § 97.104 contains the CAIR NO<sub>x</sub> allowances necessary for completion of the deduction under paragraph (b)(2)(i) of this section.

(3)(i) For every control period after the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104, the CAIR NO<sub>x</sub> opt-in unit will be allocated CAIR NO<sub>x</sub> allowances under § 97.142.

(ii) If the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104 is not December 31, the following amount of CAIR NO<sub>x</sub> allowances will be allocated to the CAIR NO<sub>x</sub> opt-in unit (as a CAIR NO<sub>x</sub> unit) under § 97.142 for the control period that includes the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104:

(A) The amount of CAIR NO<sub>x</sub> allowances otherwise allocated to the CAIR NO<sub>x</sub> opt-in unit (as a CAIR NO<sub>x</sub> unit) under § 97.142 for the control period multiplied by;

(B) The ratio of the number of days, in the control period, starting with the date on which the CAIR NO<sub>x</sub> opt-in unit becomes a CAIR NO<sub>x</sub> unit under § 97.104, divided by the total number of days in the control period; and

(C) Rounded to the nearest whole allowance as appropriate.

**§ 97.188 CAIR NO<sub>x</sub> allowance allocations to CAIR NO<sub>x</sub> opt-in units.**

(a) *Timing requirements.* (1) When the CAIR opt-in permit is issued under § 97.184(e), the permitting authority will allocate CAIR NO<sub>x</sub> allowances to the CAIR NO<sub>x</sub> opt-in unit, and submit to the Administrator the allocation for the control period in which a CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g), in accordance with paragraph (b) or (c) of this section.

(2) By no later than October 31 of the control period after the control period in which a CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g) and October 31 of each year thereafter, the permitting authority will allocate CAIR NO<sub>x</sub> allowances to the CAIR NO<sub>x</sub> opt-in unit, and submit to the Administrator the allocation for the control period that includes such submission deadline and in which the unit is a CAIR NO<sub>x</sub> opt-in unit, in accordance with paragraph (b) or (c) of this section.

(b) *Calculation of allocation.* For each control period for which a CAIR NO<sub>x</sub> opt-in unit is to be allocated CAIR NO<sub>x</sub> allowances, the permitting authority will allocate in accordance with the following procedures, if provided in a State implementation plan revision submitted in accordance with § 51.123(p)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) The heat input (in mmBtu) used for calculating the CAIR NO<sub>x</sub> allowance allocation will be the lesser of:

(i) The CAIR NO<sub>x</sub> opt-in unit's baseline heat input determined under § 97.184(c); or

(ii) The CAIR NO<sub>x</sub> opt-in unit's heat input, as determined in accordance with subpart HH of this part, for the immediately prior control period, except when the allocation is being calculated for the control period in which the CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g).

(2) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating CAIR NO<sub>x</sub> allowance allocations will be the lesser of:

(i) The CAIR NO<sub>x</sub> opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.184(d) and multiplied by 70 percent; or

(ii) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> opt-in unit at any time during the control period for

which CAIR NO<sub>x</sub> allowances are to be allocated.

(3) The permitting authority will allocate CAIR NO<sub>x</sub> allowances to the CAIR NO<sub>x</sub> opt-in unit in an amount equaling the heat input under paragraph (b)(1) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (b)(2) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(c) Notwithstanding paragraph (b) of this section and if the CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit (based on a demonstration of the intent to repower stated under § 97.183(a)(5)) providing for, allocation to a CAIR NO<sub>x</sub> opt-in unit of CAIR NO<sub>x</sub> allowances under this paragraph (subject to the conditions in §§ 97.184(h) and 97.186(g)), the permitting authority will allocate to the CAIR NO<sub>x</sub> opt-in unit as follows, if provided in a State implementation plan revision submitted in accordance with ( § 51.123(p)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) For each control period in 2009 through 2014 for which the CAIR NO<sub>x</sub> opt-in unit is to be allocated CAIR NO<sub>x</sub> allowances,

(i) The heat input (in mmBtu) used for calculating CAIR NO<sub>x</sub> allowance allocations will be determined as described in paragraph (b)(1) of this section.

(ii) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating CAIR NO<sub>x</sub> allowance allocations will be the lesser of:

(A) The CAIR NO<sub>x</sub> opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.184(d); or

(B) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> opt-in unit at any time during the control period in which the CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g).

(iii) The permitting authority will allocate CAIR NO<sub>x</sub> allowances to the CAIR NO<sub>x</sub> opt-in unit in an amount equaling the heat input under paragraph (c)(1)(i) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (c)(1)(ii) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(2) For each control period in 2015 and thereafter for which the CAIR NO<sub>x</sub> opt-in unit is to be allocated CAIR NO<sub>x</sub> allowances,

(i) The heat input (in mmBtu) used for calculating the CAIR NO<sub>x</sub> allowance allocations will be determined as

described in paragraph (b)(1) of this section.

(ii) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating the CAIR NO<sub>x</sub> allowance allocation will be the lesser of:

(A) 0.15 lb/mmBtu;

(B) The CAIR NO<sub>x</sub> opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.184(d); or

(C) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> opt-in unit at any time during the control period for which CAIR NO<sub>x</sub> allowances are to be allocated.

(iii) The permitting authority will allocate CAIR NO<sub>x</sub> allowances to the CAIR NO<sub>x</sub> opt-in unit in an amount equaling the heat input under paragraph (c)(2)(i) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (c)(2)(ii) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(d) *Recordation.* If provided in a State implementation plan revision submitted in accordance with § 51.123(p)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) The Administrator will record, in the compliance account of the source that includes the CAIR NO<sub>x</sub> opt-in unit, the CAIR NO<sub>x</sub> allowances allocated by the permitting authority to the CAIR NO<sub>x</sub> opt-in unit under paragraph (a)(1) of this section.

(2) By December 1 of the control period in which a CAIR NO<sub>x</sub> opt-in unit enters the CAIR NO<sub>x</sub> Annual Trading Program under § 97.184(g) and December 1 of each year thereafter, the Administrator will record, in the compliance account of the source that includes the CAIR NO<sub>x</sub> opt-in unit, the CAIR NO<sub>x</sub> allowances allocated by the permitting authority to the CAIR NO<sub>x</sub> opt-in unit under paragraph (a)(2) of this section.

**Appendix A to Subpart II of Part 97—  
States With Approved State  
Implementation Plan Revisions  
Concerning CAIR NO<sub>x</sub> Opt-In Units**

1. The following States have State Implementation Plan revisions under § 51.123(p)(3) of this chapter approved by the Administrator and establishing procedures providing for CAIR NO<sub>x</sub> opt-in units under subpart II of this part and allocation of CAIR NO<sub>x</sub> allowances to such units under § 97.188(b):

[Reserved]

2. The following States have State Implementation Plan revisions under § 51.123(p)(3) of this chapter approved by the Administrator and establishing procedures providing for CAIR NO<sub>x</sub> opt-in units under subpart II of this part and allocation of CAIR

NO<sub>x</sub> allowances to such units under

§ 97.188(c):  
[Reserved]

■ 4. Part 97 is amended by adding subparts AAA through CCC, adding and reserving subparts DDD and EEE and adding subparts FFF through III to read as follows:

**Subpart AAA—CAIR SO<sub>2</sub> Trading Program General Provisions**

Sec.

- 97.201 Purpose.
- 97.202 Definitions.
- 97.203 Measurements, abbreviations, and acronyms.
- 97.204 Applicability.
- 97.205 Retired unit exemption.
- 97.206 Standard requirements.
- 97.207 Computation of time.
- 97.208 Appeal procedures.

**Subpart BBB—CAIR Designated Representative for CAIR SO<sub>2</sub> Sources**

- 97.210 Authorization and responsibilities of CAIR designated representative.
- 97.211 Alternate CAIR designated representative.
- 97.212 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.
- 97.213 Certificate of representation.
- 97.214 Objections concerning CAIR designated representative.
- 97.215 Delegation by CAIR designated representative and alternate CAIR designated representative.

**Subpart CCC—Permits**

- 97.220 General CAIR SO<sub>2</sub> Trading Program permit requirements.
- 97.221 Submission of CAIR permit applications.
- 97.222 Information requirements for CAIR permit applications.
- 97.223 CAIR permit contents and term.
- 97.224 CAIR permit revisions.

**Subpart DDD—[Reserved]**

**Subpart EEE—[Reserved]**

**Subpart FFF—CAIR SO<sub>2</sub> Allowance Tracking System**

- 97.250 [Reserved]
- 97.251 Establishment of accounts.
- 97.252 Responsibilities of CAIR authorized account representative.
- 97.253 Recordation of CAIR SO<sub>2</sub> allowances.
- 97.254 Compliance with CAIR SO<sub>2</sub> emissions limitation.
- 97.255 Banking.
- 97.256 Account error.
- 97.257 Closing of general accounts.

**Subpart GGG—CAIR SO<sub>2</sub> Allowance Transfers**

- 97.260 Submission of CAIR SO<sub>2</sub> allowance transfers.
- 97.261 EPA recordation.
- 97.262 Notification.

**Subpart HHH—Monitoring and Reporting**

- 97.270 General requirements.
- 97.271 Initial certification and recertification procedures.

- 97.272 Out of control periods.
- 97.273 Notifications.
- 97.274 Recordkeeping and reporting.
- 97.275 Petitions.

**Subpart III—CAIR SO<sub>2</sub> Opt-in Units**

- 97.280 Applicability.
- 97.281 General.
- 97.282 CAIR designated representative.
- 97.283 Applying for CAIR opt-in permit.
- 97.284 Opt-in process.
- 97.285 CAIR opt-in permit contents.
- 97.286 Withdrawal from CAIR SO<sub>2</sub> Trading Program.
- 97.287 Change in regulatory status.
- 97.288 CAIR SO<sub>2</sub> allowance allocations to CAIR SO<sub>2</sub> opt-in units.

**Appendix A to Subpart III of Part 97—States With Approved State Implementation Plan Revisions Concerning CAIR SO<sub>2</sub> Opt-In Units**

**Subpart AAA—CAIR SO<sub>2</sub> Trading Program General Provisions**

**§ 97.201 Purpose.**

This subpart and subparts BBB through III set forth the general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the Federal Clean Air Interstate Rule (CAIR) SO<sub>2</sub> Trading Program, under section 110 of the Clean Air Act and § 52.36 of this chapter, as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

**§ 97.202 Definitions.**

The terms used in this subpart and subparts BBB through III shall have the meanings set forth in this section as follows:

*Account number* means the identification number given by the Administrator to each CAIR SO<sub>2</sub> Allowance Tracking System account.

*Acid Rain emissions limitation* means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.

*Acid Rain Program* means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and parts 72 through 78 of this chapter.

*Administrator* means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.

*Allocate or allocation* means, with regard to CAIR SO<sub>2</sub> allowances issued under the Acid Rain Program, the determination by the Administrator of the amount of such CAIR SO<sub>2</sub> allowances to be initially credited to a CAIR SO<sub>2</sub> unit or other entity and, with regard to CAIR SO<sub>2</sub> allowances issued under § 97.288 or provisions of a State

implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter, the determination by a permitting authority of the amount of such CAIR SO<sub>2</sub> allowances to be initially credited to a CAIR SO<sub>2</sub> unit or other entity.

*Allowance transfer deadline* means, for a control period, midnight of March 1 (if it is a business day), or midnight of the first business day thereafter (if March 1 is not a business day), immediately following the control period and is the deadline by which a CAIR SO<sub>2</sub> allowance transfer must be submitted for recordation in a CAIR SO<sub>2</sub> source's compliance account in order to be used to meet the source's CAIR SO<sub>2</sub> emissions limitation for such control period in accordance with § 97.254.

*Alternate CAIR designated representative* means, for a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source in accordance with subparts BBB and III of this part, to act on behalf of the CAIR designated representative in matters pertaining to the CAIR SO<sub>2</sub> Trading Program. If the CAIR SO<sub>2</sub> source is also a CAIR NO<sub>x</sub> source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR SO<sub>2</sub> source is also a CAIR NO<sub>x</sub> Ozone Season source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR SO<sub>2</sub> source is also subject to the Acid Rain Program, then this natural person shall be the same person as the alternate designated representative under the Acid Rain Program. If the CAIR SO<sub>2</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program.

*Automated data acquisition and handling system or DAHS* means that component of the continuous emission monitoring system, or other emissions monitoring system approved for use under subpart HHH of this part, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by subpart HHH of this part.

*Boiler* means an enclosed fossil- or other-fuel-fired combustion device used

to produce heat and to transfer heat to recirculating water, steam, or other medium.

**Bottoming-cycle cogeneration unit** means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

**CAIR authorized account representative** means, with regard to a general account, a responsible natural person who is authorized, in accordance with subparts BBB, FFF, and III of this part, to transfer and otherwise dispose of CAIR SO<sub>2</sub> allowances held in the general account and, with regard to a compliance account, the CAIR designated representative of the source.

**CAIR designated representative** means, for a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source, in accordance with subparts BBB and III of this part, to represent and legally bind each owner and operator in matters pertaining to the CAIR SO<sub>2</sub> Trading Program. If the CAIR SO<sub>2</sub> source is also a CAIR NO<sub>x</sub> source, then this natural person shall be the same person as the CAIR designated representative under the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR SO<sub>2</sub> source is also a CAIR NO<sub>x</sub> Ozone Season source, then this natural person shall be the same person as the CAIR designated representative under the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR SO<sub>2</sub> source is also subject to the Acid Rain Program, then this natural person shall be the same person as the designated representative under the Acid Rain Program. If the CAIR SO<sub>2</sub> source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program.

**CAIR NO<sub>x</sub> Annual Trading Program** means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AA through II of this part and (§ 51.123(p) and 52.35 of this chapter or approved and administered by the Administrator in accordance with subparts AA through II of part 96 of this chapter and § 51.123(o)(1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and nitrogen oxides.

**CAIR NO<sub>x</sub> Ozone Season source** means a source that is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program.

**CAIR NO<sub>x</sub> Ozone Season Trading Program** means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AAAA through IIII of this part and (§ 51.123(ee) and 52.35 of this chapter or approved and administered by the Administrator in accordance with under subparts AAAA through IIII and § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), or (dd) of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides.

**CAIR NO<sub>x</sub> source** means a source that is subject to the CAIR NO<sub>x</sub> Annual Trading Program.

**CAIR permit** means the legally binding and federally enforceable written document, or portion of such document, issued by the permitting authority under subpart CCC of this part, including any permit revisions, specifying the CAIR SO<sub>2</sub> Trading Program requirements applicable to a CAIR SO<sub>2</sub> source, to each CAIR SO<sub>2</sub> unit at the source, and to the owners and operators and the CAIR designated representative of the source and each such unit.

**CAIR SO<sub>2</sub> allowance** means a limited authorization issued by the Administrator under the Acid Rain Program, by a permitting authority under § 97.288, or by a permitting authority under provisions of a State implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter, to emit sulfur dioxide during the control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR SO<sub>2</sub> Trading Program as follows:

- (1) For one CAIR SO<sub>2</sub> allowance allocated for a control period in a year before 2010, one ton of sulfur dioxide, except as provided in § 97.254(b);
- (2) For one CAIR SO<sub>2</sub> allowance allocated for a control period in 2010 through 2014, 0.50 ton of sulfur dioxide, except as provided in § 97.254(b); and
- (3) For one CAIR SO<sub>2</sub> allowance allocated for a control period in 2015 or later, 0.35 ton of sulfur dioxide, except as provided in § 97.254(b).
- (4) An authorization to emit sulfur dioxide that is not issued under the Acid Rain Program, § 97.288, or provisions of a State implementation plan that are approved under § 51.124(o)(1) or (2) or (r) of this chapter shall not be a CAIR SO<sub>2</sub> allowance.

**CAIR SO<sub>2</sub> allowance deduction or deduct CAIR SO<sub>2</sub> allowances** means the permanent withdrawal of CAIR SO<sub>2</sub> allowances by the Administrator from a compliance account, e.g., in order to account for a specified number of tons

of total sulfur dioxide emissions from all CAIR SO<sub>2</sub> units at a CAIR SO<sub>2</sub> source for a control period, determined in accordance with subpart HHH of this part, or to account for excess emissions.

**CAIR SO<sub>2</sub> Allowance Tracking System** means the system by which the Administrator records allocations, deductions, and transfers of CAIR SO<sub>2</sub> allowances under the CAIR SO<sub>2</sub> Trading Program. This is the same system as the Allowance Tracking System under § 72.2 of this chapter by which the Administrator records allocations, deduction, and transfers of Acid Rain SO<sub>2</sub> allowances under the Acid Rain Program.

**CAIR SO<sub>2</sub> Allowance Tracking System account** means an account in the CAIR SO<sub>2</sub> Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of CAIR SO<sub>2</sub> allowances. Such allowances will be allocated, held, deducted, or transferred only as whole allowances.

**CAIR SO<sub>2</sub> allowances held or hold CAIR SO<sub>2</sub> allowances** means the CAIR SO<sub>2</sub> allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with subparts FFF, GGG, and III of this part or part 73 of this chapter, in a CAIR SO<sub>2</sub> Allowance Tracking System account.

**CAIR SO<sub>2</sub> emissions limitation** means, for a CAIR SO<sub>2</sub> source, the tonnage equivalent, in SO<sub>2</sub> emissions in a control period, of the CAIR SO<sub>2</sub> allowances available for deduction for the source under § 97.254(a) and (b) for the control period.

**CAIR SO<sub>2</sub> source** means a source that includes one or more CAIR SO<sub>2</sub> units.

**CAIR SO<sub>2</sub> Trading Program** means a multi-state sulfur dioxide air pollution control and emission reduction program established by the Administrator in accordance with subparts AAA through IIII of this part and §§ 51.124(r) and 52.36 of this chapter or approved and administered by the Administrator in accordance with subparts AAA through IIII of part 96 of this chapter and § 51.124(o) (1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

**CAIR SO<sub>2</sub> unit** means a unit that is subject to the CAIR SO<sub>2</sub> Trading Program under § 97.204 and, except for purposes of § 97.205, a CAIR SO<sub>2</sub> opt-in unit under subpart III of this part.

**Certifying official** means:

- (1) For a corporation, a president, secretary, treasurer, or vice-president or the corporation in charge of a principal business function or any other person who performs similar policy or

decision-making functions for the corporation;

(2) For a partnership or sole proprietorship, a general partner or the proprietor respectively; or

(3) For a local government entity or State, Federal, or other public agency, a principal executive officer or ranking elected official.

*Clean Air Act* or *CAA* means the Clean Air Act, 42 U.S.C. 7401, *et seq.*

*Coal* means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite.

*Coal-derived fuel* means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

*Coal-fired* means combusting any amount of coal or coal-derived fuel, alone, or in combination with any amount of any other fuel.

*Cogeneration unit* means 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.

*Combustion turbine* means:

(1) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(2) If the enclosed device under paragraph (1) of this definition is combined cycle, any associated duct burner, heat recovery steam generator, and steam turbine.

*Commence commercial operation* means, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to

generate electricity for sale or use, including test generation, except as provided in § 97.205 and § 97.284(h).

(i) For a unit that is a CAIR SO<sub>2</sub> unit under § 97.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR SO<sub>2</sub> unit under § 97.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 97.205, for a unit that is not a CAIR SO<sub>2</sub> unit under § 97.204 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR SO<sub>2</sub> unit under § 97.204.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1) or (2) of this definition as appropriate.

*Commence operation* means:

(1) To have begun any mechanical, chemical, or electronic process,

including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 97.284(h).

(2) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(3) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1), (2), or (3) of this definition as appropriate, except as provided in § 97.284(h).

*Common stack* means a single flue through which emissions from 2 or more units are exhausted.

*Compliance account* means a CAIR SO<sub>2</sub> Allowance Tracking System account, established by the Administrator for a CAIR SO<sub>2</sub> source subject to an Acid Rain emissions limitations under § 73.31(a) or (b) of this chapter or for any other CAIR SO<sub>2</sub> source under subpart FFF or III of this part, in which any CAIR SO<sub>2</sub> allowance allocations for the CAIR SO<sub>2</sub> units at the source are initially recorded and in which are held any CAIR SO<sub>2</sub> allowances available for use for a control period in order to meet the source's CAIR SO<sub>2</sub> emissions limitation in accordance with § 97.254.

*Continuous emission monitoring system* or *CEMS* means the equipment required under subpart HHH of this part to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of sulfur dioxide emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with part 75 of this chapter. The following systems are the principal types of continuous emission monitoring systems required under subpart HHH of this part:

(1) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in standard cubic feet per hour (scfh);

(2) A sulfur dioxide monitoring system, consisting of a SO<sub>2</sub> pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of SO<sub>2</sub> emissions, in parts per million (ppm);

(3) A moisture monitoring system, as defined in § 75.11(b)(2) of this chapter and providing a permanent, continuous record of the stack gas moisture content, in percent H<sub>2</sub>O;

(4) A carbon dioxide monitoring system, consisting of a CO<sub>2</sub> pollutant concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO<sub>2</sub> concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO<sub>2</sub> emissions, in percent CO<sub>2</sub>; and

(5) An oxygen monitoring system, consisting of an O<sub>2</sub> concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O<sub>2</sub> in percent O<sub>2</sub>.

*Control period* means the period beginning January 1 of a calendar year, except as provided in § 97.206(c)(2), and ending on December 31 of the same year, inclusive.

*Emissions* means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Administrator by the CAIR designated representative and as determined by the Administrator in accordance with subpart HHH of this part.

*Excess emissions* means any ton, or portion of a ton, of sulfur dioxide emitted by the CAIR SO<sub>2</sub> units at a CAIR SO<sub>2</sub> source during a control period that exceeds the CAIR SO<sub>2</sub> emissions limitation for the source, provided that any portion of a ton of excess emissions shall be treated as one ton of excess emissions.

*Fossil fuel* means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

*Fossil-fuel-fired* means, with regard to a unit, combusting any amount of fossil fuel in any calendar year.

*General account* means a CAIR SO<sub>2</sub> Allowance Tracking System account, established under subpart FFF of this part, that is not a compliance account.

*Generator* means a device that produces electricity.

*Heat input* means, with regard to a specified period of time, the product (in mmBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion

device (in lb of fuel/time), as measured, recorded, and reported to the Administrator by the CAIR designated representative and determined by the Administrator in accordance with subpart HHH of this part and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

*Heat input rate* means the amount of heat input (in mmBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in mmBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

*Hg Budget Trading Program* means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

*Life-of-the-unit, firm power contractual arrangement* means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:

- (1) For the life of the unit;
- (2) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or
- (3) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

*Maximum design heat input* means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

*Monitoring system* means any monitoring system that meets the requirements of subpart HHH of this part, including a continuous emissions monitoring system, an alternative monitoring system, or an excepted monitoring system under part 75 of this chapter.

*Most stringent State or Federal SO<sub>2</sub> emissions limitation* means, with regard to a unit, the lowest SO<sub>2</sub> emissions

limitation (in terms of lb/mmBtu) that is applicable to the unit under State or Federal law, regardless of the averaging period to which the emissions limitation applies.

*Nameplate capacity* means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings) as of such installation as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as of such completion as specified by the person conducting the physical change.

*Operator* means any person who operates, controls, or supervises a CAIR SO<sub>2</sub> unit or a CAIR SO<sub>2</sub> source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

*Owner* means any of the following persons:

(1) With regard to a CAIR SO<sub>2</sub> source or a CAIR SO<sub>2</sub> unit at a source, respectively:

- (i) Any holder of any portion of the legal or equitable title in a CAIR SO<sub>2</sub> unit at the source or the CAIR SO<sub>2</sub> unit;
- (ii) Any holder of a leasehold interest in a CAIR SO<sub>2</sub> unit at the source or the CAIR SO<sub>2</sub> unit; or

(iii) Any purchaser of power from a CAIR SO<sub>2</sub> unit at the source or the CAIR SO<sub>2</sub> unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such CAIR SO<sub>2</sub> unit; or

(2) With regard to any general account, any person who has an ownership interest with respect to the CAIR SO<sub>2</sub> allowances held in the general account and who is subject to the binding agreement for the CAIR authorized account representative to represent the person's ownership interest with respect to CAIR SO<sub>2</sub> allowances.

*Permitting authority* means the State air pollution control agency, local agency, other State agency, or other



agency authorized by the Administrator to issue or revise permits to meet the requirements of the CAIR SO<sub>2</sub> Trading Program in accordance with subpart CCC of this part or, if no such agency has been so authorized, the Administrator.

*Potential electrical output capacity* means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.

*Receive or receipt of* means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.

*Recordation, record, or recorded* means, with regard to CAIR SO<sub>2</sub> allowances, the movement of CAIR SO<sub>2</sub> allowances by the Administrator into or between CAIR SO<sub>2</sub> Allowance Tracking System accounts, for purposes of allocation, transfer, or deduction.

*Reference method* means any direct test method of sampling and analyzing for an air pollutant as specified in § 75.22 of this chapter.

*Replacement, replace, or replaced* means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

*Repowered* means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

- (1) Atmospheric or pressurized fluidized bed combustion;
- (2) Integrated gasification combined cycle;
- (3) Magnetohydrodynamics;
- (4) Direct and indirect coal-fired turbines;
- (5) Integrated gasification fuel cells; or
- (6) As determined by the

Administrator in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (1) through (5) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of

technology in widespread commercial use as of January 1, 2005.

*Sequential use of energy* means:

(1) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(2) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

*Serial number* means, for a CAIR SO<sub>2</sub> allowance, the unique identification number assigned to each CAIR SO<sub>2</sub> allowance by the Administrator.

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

*Source* means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons. For purposes of section 502(c) of the Clean Air Act, a "source," including a "source" with multiple units, shall be considered a single "facility."

*State* means one of the States or the District of Columbia that is subject to the CAIR SO<sub>2</sub> Trading Program pursuant to § 52.35 of this chapter.

*Submit or serve* means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

- (1) In person;
- (2) By United States Postal Service; or
- (3) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

*Title V operating permit* means a permit issued under title V of the Clean Air Act and part 70 or part 71 of this chapter.

*Title V operating permit regulations* means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the Clean Air Act and part 70 or 71 of this chapter.

*Ton* means 2,000 pounds. For the purpose of determining compliance with the CAIR SO<sub>2</sub> emissions limitation, total tons of sulfur dioxide emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with subpart HHH of this part, but with any remaining fraction of a ton equal to or greater than 0.50 tons

deemed to equal one ton and any remaining fraction of a ton less than 0.50 tons deemed to equal zero tons.

*Topping-cycle cogeneration unit* means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

*Total energy input* means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself.

*Total energy output* means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

*Unit* means a stationary, fossil-fuel-fired boiler or combustion turbine or other stationary, fossil-fuel-fired combustion device. *Unit operating day* means a calendar day in which a unit combusts any fuel.

*Unit operating hour or hour of unit operation* means an hour in which a unit combusts any fuel.

*Useful power* means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

*Useful thermal energy* means, with regard to a cogeneration unit, thermal energy that is:

(1) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;

(2) Used in a heating application (e.g., space heating or domestic hot water heating); or

(3) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).

*Utility power distribution system* means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

#### § 97.203 Measurements, abbreviations, and acronyms.

Measurements, abbreviations, and acronyms used in this subpart and subparts BBB through III are defined as follows:

Btu—British thermal unit.  
CO<sub>2</sub>—carbon dioxide.  
H<sub>2</sub>O—water.  
Hg—mercury.

hr—hour.  
 kW—kilowatt electrical.  
 kWh—kilowatt hour.  
 lb—pound.  
 mmBtu—million Btu.  
 MWe—megawatt electrical.  
 MWh—megawatt hour.  
 NO<sub>x</sub>—nitrogen oxides.  
 O<sub>2</sub>—oxygen.  
 ppm—parts per million.  
 scfh—standard cubic feet per hour.  
 SO<sub>2</sub>—sulfur dioxide.  
 yr—year.

#### § 97.204 Applicability.

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR SO<sub>2</sub> units, and any source that includes one or more such units shall be a CAIR SO<sub>2</sub> source, subject to the requirements of this subpart and subparts BBB through HHH of this part: any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR SO<sub>2</sub> unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR SO<sub>2</sub> unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this section shall not be CAIR SO<sub>2</sub> units:

(1)(i) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements

of paragraphs (b)(1)(i) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR SO<sub>2</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR SO<sub>2</sub> unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the unit shall become a CAIR SO<sub>2</sub> unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

(c) A certifying official of an owner or operator of any unit may petition the Administrator at any time for a determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR SO<sub>2</sub> Trading Program to the unit.

(1) *Petition content.* The petition shall be in writing and include the identification of the unit and the relevant facts about the unit. The petition and any other documents provided to the Administrator in connection with the petition shall include the following certification

statement, signed by the certifying official: "I am authorized to make this submission on behalf of the owners and operators of the unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) *Submission.* The petition and any other documents provided in connection with the petition shall be submitted to the Director of the Clean Air Markets Division (or its successor), U.S. Environmental Protection Agency, who will act on the petition as the Administrator's duly authorized representative.

(3) *Response.* The Administrator will issue a written response to the petition and may request supplemental information relevant to such petition. The Administrator's determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR SO<sub>2</sub> Trading Program to the unit shall be binding on the permitting authority unless the petition or other information or documents provided in connection with the petition are found to have contained significant, relevant errors or omissions.

#### § 97.205 Retired unit exemption.

(a)(1) Any CAIR SO<sub>2</sub> unit that is permanently retired and is not a CAIR SO<sub>2</sub> opt-in unit under subpart III of this part shall be exempt from the CAIR SO<sub>2</sub> Trading Program, except for the provisions of this section, §§ 97.202, 97.203, 97.204, 97.206(c)(4) through (7), 97.207, 97.208, and subparts BBB, FFF, and GGG of this part.

(2) The exemption under paragraph (a)(1) of this section shall become effective the day on which the CAIR SO<sub>2</sub> unit is permanently retired. Within 30 days of the unit's permanent retirement, the CAIR designated representative shall submit a statement to the permitting authority otherwise responsible for administering any CAIR permit for the unit and shall submit a copy of the statement to the Administrator. The statement shall state, in a format prescribed by the permitting authority, that the unit was permanently retired on

a specific date and will comply with the requirements of paragraph (b) of this section.

(3) After receipt of the statement under paragraph (a)(2) of this section, the permitting authority will amend any permit under subpart CCC of this part covering the source at which the unit is located to add the provisions and requirements of the exemption under paragraphs (a)(1) and (b) of this section.

(b) *Special provisions.* (1) A unit exempt under paragraph (a) of this section shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.

(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under paragraph (a) of this section shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.

(3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under paragraph (a) of this section shall comply with the requirements of the CAIR SO<sub>2</sub> Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(4) A unit exempt under paragraph (a) of this section and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under § 97.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.

(5) On the earlier of the following dates, a unit exempt under paragraph (a) of this section shall lose its exemption:

(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under paragraph (b)(4) of this section;

(ii) The date on which the CAIR designated representative is required under paragraph (b)(4) of this section to submit a CAIR permit application for the unit; or

(iii) The date on which the unit resumes operation, if the CAIR designated representative is not

required to submit a CAIR permit application for the unit.

(6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under subpart HHH of this part, a unit that loses its exemption under paragraph (a) of this section shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

#### § 97.206 Standard requirements.

(a) *Permit requirements.* (1) The CAIR designated representative of each CAIR SO<sub>2</sub> source required to have a title V operating permit and each CAIR SO<sub>2</sub> unit required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under § 97.222 in accordance with the deadlines specified in § 97.221; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR SO<sub>2</sub> source required to have a title V operating permit and each CAIR SO<sub>2</sub> unit required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CCC of this part for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart III of this part, the owners and operators of a CAIR SO<sub>2</sub> source that is not otherwise required to have a title V operating permit and each CAIR SO<sub>2</sub> unit that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CCC of this part for such CAIR SO<sub>2</sub> source and such CAIR SO<sub>2</sub> unit.

(b) *Monitoring, reporting, and recordkeeping requirements.* (1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHH of this part.

(2) The emissions measurements recorded and reported in accordance with subpart HHH of this part shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation under paragraph (c) of this section.

(c) *Sulfur dioxide emission requirements.* (1) As of the allowance transfer deadline for a control period,

the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with § 97.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with subpart HHH of this part.

(2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit(s) monitor certification requirements under § 97.270(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.

(4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of this part.

(5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.205 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of this part, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) *Excess emissions requirements.* If a CAIR SO<sub>2</sub> source emits sulfur dioxide during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:

(1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under § 97.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period

shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) *Recordkeeping and reporting requirements.* (1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under § 97.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under § 97.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subpart HHH of this part, provided that to the extent that subpart HHH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under subpart HHH of this part.

(f) *Liability.* (1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.

(3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.

(g) *Effect on other authorities.* No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

#### **§ 97.207 Computation of time.**

(a) Unless otherwise stated, any time period scheduled, under the CAIR SO<sub>2</sub> Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled, under the CAIR SO<sub>2</sub> Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period, under the CAIR SO<sub>2</sub> Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

#### **§ 97.208 Appeal procedures.**

The appeal procedures for decisions of the Administrator under the CAIR SO<sub>2</sub> Trading Program are set forth in part 78 of this chapter.

### **Subpart BBB—CAIR Designated Representative for CAIR SO<sub>2</sub> Sources**

#### **§ 97.210 Authorization and responsibilities of CAIR designated representative.**

(a) Except as provided under § 97.211, each CAIR SO<sub>2</sub> source, including all CAIR SO<sub>2</sub> units at the source, shall have one and only one CAIR designated representative, with regard to all matters under the CAIR SO<sub>2</sub> Trading Program concerning the source or any CAIR SO<sub>2</sub> unit at the source.

(b) The CAIR designated representative of the CAIR SO<sub>2</sub> source shall be selected by an agreement binding on the owners and operators of the source and all CAIR SO<sub>2</sub> units at the source and shall act in accordance with the certification statement in § 97.213(a)(4)(iv).

(c) Upon receipt by the Administrator of a complete certificate of representation under § 97.213, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR SO<sub>2</sub> source represented and each CAIR SO<sub>2</sub> unit at the source in all matters pertaining to

the CAIR SO<sub>2</sub> Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the permitting authority, the Administrator, or a court regarding the source or unit.

(d) No CAIR permit will be issued, no emissions data reports will be accepted, and no CAIR SO<sub>2</sub> Allowance Tracking System account will be established for a CAIR SO<sub>2</sub> unit at a source, until the Administrator has received a complete certificate of representation under § 97.213 for a CAIR designated representative of the source and the CAIR SO<sub>2</sub> units at the source.

(e)(1) Each submission under the CAIR SO<sub>2</sub> Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR SO<sub>2</sub> source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) The permitting authority and the Administrator will accept or act on a submission made on behalf of owner or operators of a CAIR SO<sub>2</sub> source or a CAIR SO<sub>2</sub> unit only if the submission has been made, signed, and certified in accordance with paragraph (e)(1) of this section.

#### **§ 97.211 Alternate CAIR designated representative.**

(a) A certificate of representation under § 97.213 may designate one and only one alternate CAIR designated representative, who may act on behalf of the CAIR designated representative. The agreement by which the alternate CAIR designated representative is selected shall include a procedure for authorizing the alternate CAIR

designated representative to act in lieu of the CAIR designated representative.

(b) Upon receipt by the Administrator of a complete certificate of representation under § 97.213, any representation, action, inaction, or submission by the alternate CAIR designated representative shall be deemed to be a representation, action, inaction, or submission by the CAIR designated representative.

(c) Except in this section and §§ 97.202, 97.210(a) and (d), 97.212, 97.213, 97.215, 97.251 and 97.282, whenever the term "CAIR designated representative" is used in subparts AAA through III of this part, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

**§ 97.212 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.**

(a) *Changing CAIR designated representative.* The CAIR designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.213. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the new CAIR designated representative and the owners and operators of the CAIR SO<sub>2</sub> source and the CAIR SO<sub>2</sub> units at the source.

(b) *Changing alternate CAIR designated representative.* The alternate CAIR designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.213. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the new alternate CAIR designated representative and the owners and operators of the CAIR SO<sub>2</sub> source and the CAIR SO<sub>2</sub> units at the source.

(c) *Changes in owners and operators.* (1) In the event an owner or operator of a CAIR SO<sub>2</sub> source or a CAIR SO<sub>2</sub> unit is not included in the list of owners and operators in the certificate of representation under § 97.213, such owner or operator shall be deemed to be subject to and bound by the certificate

of representation, the representations, actions, inactions, and submissions of the CAIR designated representative and any alternate CAIR designated representative of the source or unit, and the decisions and orders of the permitting authority, the Administrator, or a court, as if the owner or operator were included in such list.

(2) Within 30 days following any change in the owners and operators of a CAIR SO<sub>2</sub> source or a CAIR SO<sub>2</sub> unit, including the addition of a new owner or operator, the CAIR designated representative or any alternate CAIR designated representative shall submit a revision to the certificate of representation under § 97.213 amending the list of owners and operators to include the change.

**§ 97.213 Certificate of representation.**

(a) A complete certificate of representation for a CAIR designated representative or an alternate CAIR designated representative shall include the following elements in a format prescribed by the Administrator:

(1) Identification of the CAIR SO<sub>2</sub> source, and each CAIR SO<sub>2</sub> unit at the source, for which the certificate of representation is submitted, including identification and nameplate capacity of each generator served by each such unit.

(2) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR designated representative and any alternate CAIR designated representative.

(3) A list of the owners and operators of the CAIR SO<sub>2</sub> source and of each CAIR SO<sub>2</sub> unit at the source.

(4) The following certification statements by the CAIR designated representative and any alternate CAIR designated representative—

(i) "I certify that I was selected as the CAIR designated representative or alternate CAIR designated representative, as applicable, by an agreement binding on the owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source."

(ii) "I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR SO<sub>2</sub> Trading Program on behalf of the owners and operators of the source and of each CAIR SO<sub>2</sub> unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions."

(iii) "I certify that the owners and operators of the source and of each CAIR SO<sub>2</sub> unit at the source shall be bound by any order issued to me by the

Administrator, the permitting authority, or a court regarding the source or unit."

(iv) "Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, a CAIR SO<sub>2</sub> unit, or where a utility or industrial customer purchases power from a CAIR SO<sub>2</sub> unit under a life-of-the-unit, firm power contractual arrangement, I certify that: I have given a written notice of my selection as the 'CAIR designated representative' or 'alternate CAIR designated representative', as applicable, and of the agreement by which I was selected to each owner and operator of the source and of each CAIR SO<sub>2</sub> unit at the source; and CAIR SO<sub>2</sub> allowances and proceeds of transactions involving CAIR SO<sub>2</sub> allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of CAIR SO<sub>2</sub> allowances by contract, CAIR SO<sub>2</sub> allowances and proceeds of transactions involving CAIR SO<sub>2</sub> allowances will be deemed to be held or distributed in accordance with the contract."

(5) The signature of the CAIR designated representative and any alternate CAIR designated representative and the dates signed.

(b) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the certificate of representation shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

**§ 97.214 Objections concerning CAIR designated representative.**

(a) Once a complete certificate of representation under § 97.213 has been submitted and received, the permitting authority and the Administrator will rely on the certificate of representation unless and until a superseding complete certificate of representation under § 97.213 is received by the Administrator.

(b) Except as provided in § 97.212(a) or (b), no objection or other communication submitted to the permitting authority or the Administrator concerning the authorization, or any representation, action, inaction, or submission, of the CAIR designated representative shall affect any representation, action, inaction, or submission of the CAIR designated representative or the finality

of any decision or order by the permitting authority or the Administrator under the CAIR SO<sub>2</sub> Trading Program.

(c) Neither the permitting authority nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any CAIR designated representative, including private legal disputes concerning the proceeds of CAIR SO<sub>2</sub> allowance transfers.

**§ 97.215 Delegation by CAIR designated representative and alternate CAIR designated representative.**

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of

delegation is superseded by another notice of delegation under 40 CFR 97.215(d) shall be deemed to be an electronic submission by me."

(ii) "Until this notice of delegation is superseded by another notice of delegation under 40 CFR 97.215(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 97.215 is terminated."

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

**Subpart CCC—Permits**

**§ 97.220 General CAIR SO<sub>2</sub> Trading Program permit requirements.**

(a) For each CAIR SO<sub>2</sub> source required to have a title V operating permit or required, under subpart III of this part, to have a title V operating permit or other federally enforceable permit, such permit shall include a CAIR permit administered by the permitting authority for the title V operating permit or the federally enforceable permit as applicable. The CAIR portion of the title V permit or other federally enforceable permit as applicable shall be administered in accordance with the permitting authority's title V operating permits regulations promulgated under part 70 or 71 of this chapter or the permitting authority's regulations for other federally enforceable permits as applicable, except as provided otherwise by § 97.205, this subpart, and subpart III of this part.

(b) Each CAIR permit shall contain, with regard to the CAIR SO<sub>2</sub> source and the CAIR SO<sub>2</sub> units at the source covered by the CAIR permit, all

applicable CAIR SO<sub>2</sub> Trading Program, CAIR NO<sub>x</sub> Annual Trading Program, and CAIR NO<sub>x</sub> Ozone Season Trading Program requirements and shall be a complete and separable portion of the title V operating permit or other federally enforceable permit under paragraph (a) of this section.

**§ 97.221 Submission of CAIR permit applications.**

(a) *Duty to apply.* The CAIR designated representative of any CAIR SO<sub>2</sub> source required to have a title V operating permit shall submit to the permitting authority a complete CAIR permit application under § 97.222 for the source covering each CAIR SO<sub>2</sub> unit at the source at least 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the CAIR SO<sub>2</sub> unit commences commercial operation, except as provided in § 97.283(a).

(b) *Duty to reapply.* For a CAIR SO<sub>2</sub> source required to have a title V operating permit, the CAIR designated representative shall submit a complete CAIR permit application under § 97.222 for the source covering each CAIR SO<sub>2</sub> unit at the source to renew the CAIR permit in accordance with the permitting authority's title V operating permits regulations addressing permit renewal, except as provided in § 97.283(b).

**§ 97.222 Information requirements for CAIR permit applications.**

A complete CAIR permit application shall include the following elements concerning the CAIR SO<sub>2</sub> source for which the application is submitted, in a format prescribed by the permitting authority:

(a) Identification of the CAIR SO<sub>2</sub> source;

(b) Identification of each CAIR SO<sub>2</sub> unit at the CAIR SO<sub>2</sub> source; and

(c) The standard requirements under § 97.206.

**§ 97.223 CAIR permit contents and term.**

(a) Each CAIR permit will contain, in a format prescribed by the permitting authority, all elements required for a complete CAIR permit application under § 97.222.

(b) Each CAIR permit is deemed to incorporate automatically the definitions of terms under § 97.202 and, upon recordation by the Administrator under subpart FFF, GGG, or III of this part, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from the compliance account of the CAIR SO<sub>2</sub> source covered by the permit.

(c) The term of the CAIR permit will be set by the permitting authority, as

necessary to facilitate coordination of the renewal of the CAIR permit with issuance, revision, or renewal of the CAIR SO<sub>2</sub> source's title V operating permit or other federally enforceable permit as applicable.

#### **§ 97.224 CAIR permit revisions.**

Except as provided in § 97.223(b), the permitting authority will revise the CAIR permit, as necessary, in accordance with the permitting authority's title V operating permits regulations or the permitting authority's regulations for other federally enforceable permits as applicable addressing permit revisions.

#### **Subpart DDD—[Reserved]**

#### **Subpart EEE—[Reserved]**

#### **Subpart FFF—CAIR SO<sub>2</sub> Allowance Tracking System**

#### **§ 97.250 [Reserved]**

#### **§ 97.251 Establishment of accounts.**

(a) *Compliance accounts.* Except as provided in § 97.284(e), upon receipt of a complete certificate of representation under § 97.213, the Administrator will establish a compliance account for the CAIR SO<sub>2</sub> source for which the certificate of representation was submitted, unless the source already has a compliance account.

(b) *General accounts—(1) Application for general account.* (i) Any person may apply to open a general account for the purpose of holding and transferring CAIR SO<sub>2</sub> allowances. An application for a general account may designate one and only one CAIR authorized account representative and one and only one alternate CAIR authorized account representative who may act on behalf of the CAIR authorized account representative. The agreement by which the alternate CAIR authorized account representative is selected shall include a procedure for authorizing the alternate CAIR authorized account representative to act in lieu of the CAIR authorized account representative.

(ii) A complete application for a general account shall be submitted to the Administrator and shall include the following elements in a format prescribed by the Administrator:

(A) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR authorized account representative and any alternate CAIR authorized account representative;

(B) Organization name and type of organization, if applicable;

(C) A list of all persons subject to a binding agreement for the CAIR

authorized account representative and any alternate CAIR authorized account representative to represent their ownership interest with respect to the CAIR SO<sub>2</sub> allowances held in the general account;

(D) The following certification statement by the CAIR authorized account representative and any alternate CAIR authorized account representative: "I certify that I was selected as the CAIR authorized account representative or the alternate CAIR authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CAIR SO<sub>2</sub> allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR SO<sub>2</sub> Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account."

(E) The signature of the CAIR authorized account representative and any alternate CAIR authorized account representative and the dates signed.

(iii) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

(2) *Authorization of CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Upon receipt by the Administrator of a complete application for a general account under paragraph (b)(1) of this section:

(A) The Administrator will establish a general account for the person or persons for whom the application is submitted.

(B) The CAIR authorized account representative and any alternate CAIR authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to CAIR SO<sub>2</sub> allowances held in the general account in all matters pertaining to the CAIR SO<sub>2</sub> Trading Program, notwithstanding any agreement between the CAIR authorized account representative or any alternate CAIR authorized account representative and such person. Any

such person shall be bound by any order or decision issued to the CAIR authorized account representative or any alternate CAIR authorized account representative by the Administrator or a court regarding the general account.

(C) Any representation, action, inaction, or submission by any alternate CAIR authorized account representative shall be deemed to be a representation, action, inaction, or submission by the CAIR authorized account representative.

(ii) Each submission concerning the general account shall be submitted, signed, and certified by the CAIR authorized account representative or any alternate CAIR authorized account representative for the persons having an ownership interest with respect to CAIR SO<sub>2</sub> allowances held in the general account. Each such submission shall include the following certification statement by the CAIR authorized account representative or any alternate CAIR authorized account representative: "I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CAIR SO<sub>2</sub> allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(iii) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (b)(2)(ii) of this section.

(3) *Changing CAIR authorized account representative and alternate CAIR authorized account representative; changes in persons with ownership interest.* (i) The CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general



account shall be binding on the new CAIR authorized account representative and the persons with an ownership interest with respect to the CAIR SO<sub>2</sub> allowances in the general account.

(ii) The alternate CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new alternate CAIR authorized account representative and the persons with an ownership interest with respect to the CAIR SO<sub>2</sub> allowances in the general account.

(iii)(A) In the event a person having an ownership interest with respect to CAIR SO<sub>2</sub> allowances in the general account is not included in the list of such persons in the application for a general account, such person shall be deemed to be subject to and bound by the application for a general account, the representation, actions, inactions, and submissions of the CAIR authorized account representative and any alternate CAIR authorized account representative of the account, and the decisions and orders of the Administrator or a court, as if the person were included in such list.

(B) Within 30 days following any change in the persons having an ownership interest with respect to CAIR SO<sub>2</sub> allowances in the general account, including the addition of a new person, the CAIR authorized account representative or any alternate CAIR authorized account representative shall submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the CAIR SO<sub>2</sub> allowances in the general account to include the change.

(4) *Objections concerning CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Once a complete application for a general account under paragraph (b)(1) of this section has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under paragraph (b)(1) of this section is received by the Administrator.

(ii) Except as provided in paragraph (b)(3)(i) or (ii) of this section, no

objection or other communication submitted to the Administrator concerning the authorization, or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account shall affect any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative or the finality of any decision or order by the Administrator under the CAIR SO<sub>2</sub> Trading Program.

(iii) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account, including private legal disputes concerning the proceeds of CAIR SO<sub>2</sub> allowance transfers.

(5) *Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.* (i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFF and GGG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFF and GGG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and, facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(C) For each such natural person, a list of the type or types of electronic submissions under paragraph (b)(5)(i) or

(ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 97.251(b)(5)(iv) shall be deemed to be an electronic submission by me."; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "Until this notice of delegation is superseded by another notice of delegation under 40 CFR 97.251(b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address, unless all delegation of authority by me under 40 CFR 97.251(b)(5) is terminated.".

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

(c) *Account identification.* The Administrator will assign a unique identifying number to each account established under paragraph (a) or (b) of this section.

### § 97.252 Responsibilities of CAIR authorized account representative.

Following the establishment of a CAIR SO<sub>2</sub> Allowance Tracking System account, all submissions to the Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of CAIR SO<sub>2</sub> allowances in the account, shall be made only by the CAIR authorized account representative for the account.

### § 97.253 Recordation of CAIR SO<sub>2</sub> allowances.

(a)(1) After a compliance account is established under § 97.251(a) or § 73.31(a) or (b) of this chapter, the Administrator will record in the compliance account any CAIR SO<sub>2</sub> allowance allocated to any CAIR SO<sub>2</sub> unit at the source for each of the 30 years starting the later of 2010 or the year in which the compliance account is established and any CAIR SO<sub>2</sub> allowance allocated for each of the 30 years starting the later of 2010 or the year in which the compliance account is established and transferred to the source in accordance with subpart GGG of this part or subpart D of part 73 of this chapter.

(2) In 2011 and each year thereafter, after Administrator has completed all deductions under § 97.254(b), the Administrator will record in the compliance account any CAIR SO<sub>2</sub> allowance allocated to any CAIR SO<sub>2</sub> unit at the source for the new 30th year (*i.e.*, the year that is 30 years after the calendar year for which such deductions are or could be made) and any CAIR SO<sub>2</sub> allowance allocated for the new 30th year and transferred to the source in accordance with subpart GGG of this part or subpart D of part 73 of this chapter.

(b)(1) After a general account is established under § 97.251(b) or § 73.31(c) of this chapter, the Administrator will record in the general account any CAIR SO<sub>2</sub> allowance allocated for each of the 30 years starting the later of 2010 or the year in which the general account is established and transferred to the general account in accordance with subpart GGG of this part or subpart D of part 73 of this chapter.

(2) In 2011 and each year thereafter, after Administrator has completed all deductions under § 97.254(b), the Administrator will record in the general account any CAIR SO<sub>2</sub> allowance allocated for the new 30th year (*i.e.*, the year that is 30 years after the calendar year for which such deductions are or could be made) and transferred to the general account in accordance with

subpart GGG of this part or subpart D of part 73 of this chapter.

(c) *Serial numbers for allocated CAIR SO<sub>2</sub> allowances.* When recording the allocation of CAIR SO<sub>2</sub> allowances issued by a permitting authority under § 97.288, the Administrator will assign each such CAIR SO<sub>2</sub> allowance a unique identification number that will include digits identifying the year of the control period for which the CAIR SO<sub>2</sub> allowance is allocated.

### § 97.254 Compliance with CAIR SO<sub>2</sub> emissions limitation.

(a) *Allowance transfer deadline.* The CAIR SO<sub>2</sub> allowances are available to be deducted for compliance with a source's CAIR SO<sub>2</sub> emissions limitation for a control period in a given calendar year only if the CAIR SO<sub>2</sub> allowances:

(1) Were allocated for the control period in the year or a prior year; and

(2) Are held in the compliance account as of the allowance transfer deadline for the control period or are transferred into the compliance account by a CAIR SO<sub>2</sub> allowance transfer correctly submitted for recordation under §§ 97.260 and 97.261 by the allowance transfer deadline for the control period.

(b) *Deductions for compliance.* Following the recordation, in accordance with § 97.261, of CAIR SO<sub>2</sub> allowance transfers submitted for recordation in a source's compliance account by the allowance transfer deadline for a control period, the Administrator will deduct from the compliance account CAIR SO<sub>2</sub> allowances available under paragraph (a) of this section in order to determine whether the source meets the CAIR SO<sub>2</sub> emissions limitation for the control period as follows:

(1) For a CAIR SO<sub>2</sub> source subject to an Acid Rain emissions limitation, the Administrator will, in the following order:

(i) Deduct the amount of CAIR SO<sub>2</sub> allowances, available under paragraph (a) of this section and not issued by a permitting authority under § 97.288, that is required under §§ 73.35(b) and (c) of this part. If there are sufficient CAIR SO<sub>2</sub> allowances to complete this deduction, the deduction will be treated as satisfying the requirements of §§ 73.35(b) and (c) of this chapter.

(ii) Deduct the amount of CAIR SO<sub>2</sub> allowances, not issued by a permitting authority under § 97.288, that is required under §§ 73.35(d) and 77.5 of this part. If there are sufficient CAIR SO<sub>2</sub> allowances to complete this deduction, the deduction will be treated as satisfying the requirements of §§ 73.35(d) and 77.5 of this chapter.

(iii) Treating the CAIR SO<sub>2</sub> allowances deducted under paragraph (b)(1)(i) of this section as also being deducted under this paragraph (b)(1)(iii), deduct CAIR SO<sub>2</sub> allowances available under paragraph (a) of this section (including any issued by a permitting authority under § 97.288) in order to determine whether the source meets the CAIR SO<sub>2</sub> emissions limitation for the control period, as follows:

(A) Until the tonnage equivalent of the CAIR SO<sub>2</sub> allowances deducted equals, or exceeds in accordance with paragraphs (c)(1) and (2) of this section, the number of tons of total sulfur dioxide emissions, determined in accordance with subpart HHH of this part, from all CAIR SO<sub>2</sub> units at the source for the control period; or

(B) If there are insufficient CAIR SO<sub>2</sub> allowances to complete the deductions in paragraph (b)(1)(iii)(A) of this section, until no more CAIR SO<sub>2</sub> allowances available under paragraph (a) of this section (including any issued by a permitting authority under § 97.288) remain in the compliance account.

(2) For a CAIR SO<sub>2</sub> source not subject to an Acid Rain emissions limitation, the Administrator will deduct CAIR SO<sub>2</sub> allowances available under paragraph (a) of this section (including any issued by a permitting authority under § 97.288) in order to determine whether the source meets the CAIR SO<sub>2</sub> emissions limitation for the control period, as follows:

(i) Until the tonnage equivalent of the CAIR SO<sub>2</sub> allowances deducted equals, or exceeds in accordance with paragraphs (c)(1) and (2) of this section, the number of tons of total sulfur dioxide emissions, determined in accordance with subpart HHH of this part, from all CAIR SO<sub>2</sub> units at the source for the control period; or

(ii) If there are insufficient CAIR SO<sub>2</sub> allowances to complete the deductions in paragraph (b)(2)(i) of this section, until no more CAIR SO<sub>2</sub> allowances available under paragraph (a) of this section (including any issued by a permitting authority under § 97.288) remain in the compliance account.

(c)(1) *Identification of CAIR SO<sub>2</sub> allowances by serial number.* The CAIR authorized account representative for a source's compliance account may request that specific CAIR SO<sub>2</sub> allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with paragraph (b) or (d) of this section. Such request shall be submitted to the Administrator by the allowance transfer deadline for the control period and include, in a format prescribed by the

Administrator, the identification of the CAIR SO<sub>2</sub> source and the appropriate serial numbers.

(2) *First-in, first-out.* The Administrator will deduct CAIR SO<sub>2</sub> allowances under paragraph (b) or (d) of this section from the source's compliance account, in the absence of an identification or in the case of a partial identification of CAIR SO<sub>2</sub> allowances by serial number under paragraph (c)(1) of this section, on a first-in, first-out (FIFO) accounting basis in the following order:

(i) Any CAIR SO<sub>2</sub> allowances that were allocated to the units at the source for a control period before 2010, in the order of recordation;

(ii) Any CAIR SO<sub>2</sub> allowances that were allocated to any entity for a control period before 2010 and transferred and recorded in the compliance account pursuant to subpart GGG of this part or subpart D of part 73 of this chapter, in the order of recordation;

(iii) Any CAIR SO<sub>2</sub> allowances that were allocated to the units at the source for a control period during 2010 through 2014, in the order of recordation;

(iv) Any CAIR SO<sub>2</sub> allowances that were allocated to any entity for a control period during 2010 through 2014 and transferred and recorded in the compliance account pursuant to subpart GGG of this part or subpart D of part 73 of this chapter, in the order of recordation;

(v) Any CAIR SO<sub>2</sub> allowances that were allocated to the units at the source for a control period in 2015 or later, in the order of recordation; and

(vi) Any CAIR SO<sub>2</sub> allowances that were allocated to any entity for a control period in 2015 or later and transferred and recorded in the compliance account pursuant to subpart GGG of this part or subpart D of part 73 of this chapter, in the order of recordation.

(d) *Deductions for excess emissions.*

(1) After making the deductions for compliance under paragraph (b) of this section for a control period in a calendar year in which the CAIR SO<sub>2</sub> source has excess emissions, the Administrator will deduct from the source's compliance account the tonnage equivalent in CAIR SO<sub>2</sub> allowances, allocated for the control period in the immediately following calendar year (including any issued by a permitting authority under § 97.288), equal to, or exceeding in accordance with paragraphs (c)(1) and (2) of this section 3 times the following amount: the number of tons of the source's excess emissions minus, if the source is subject to an Acid Rain emissions limitation, the amount of the CAIR SO<sub>2</sub> allowances required to be

deducted under paragraph (b)(1)(ii) of this section.

(2) Any allowance deduction required under paragraph (d)(1) of this section shall not affect the liability of the owners and operators of the CAIR SO<sub>2</sub> source or the CAIR SO<sub>2</sub> units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violations, as ordered under the Clean Air Act or applicable State law.

(e) *Recordation of deductions.* The Administrator will record in the appropriate compliance account all deductions from such an account under paragraphs (b) and (d) of this section and subpart III.

(f) *Administrator's action on submissions.* (1) The Administrator may review and conduct independent audits concerning any submission under the CAIR SO<sub>2</sub> Trading Program and make appropriate adjustments of the information in the submissions.

(2) The Administrator may deduct CAIR SO<sub>2</sub> allowances from or transfer CAIR SO<sub>2</sub> allowances to a source's compliance account based on the information in the submissions, as adjusted under paragraph (f)(1) of this section, and record such deductions and transfers.

#### **§ 97.255 Banking.**

(a) CAIR SO<sub>2</sub> allowances may be banked for future use or transfer in a compliance account or a general account in accordance with paragraph (b) of this section.

(b) Any CAIR SO<sub>2</sub> allowance that is held in a compliance account or a general account will remain in such account unless and until the CAIR SO<sub>2</sub> allowance is deducted or transferred under § 97.254, § 97.256, or subpart GGG or III of this part.

#### **§ 97.256 Account error.**

The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any CAIR SO<sub>2</sub> Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the CAIR authorized account representative for the account.

#### **§ 97.257 Closing of general accounts.**

(a) The CAIR authorized account representative of a general account may submit to the Administrator a request to close the account, which shall include a correctly submitted allowance transfer under §§ 97.260 and 97.261 for any CAIR SO<sub>2</sub> allowances in the account to one or more other CAIR SO<sub>2</sub> Allowance Tracking System accounts.

(b) If a general account has no allowance transfers in or out of the account for a 12-month period or longer and does not contain any CAIR SO<sub>2</sub> allowances, the Administrator may notify the CAIR authorized account representative for the account that the account will be closed following 20 business days after the notice is sent. The account will be closed after the 20-day period unless, before the end of the 20-day period, the Administrator receives a correctly submitted transfer of CAIR SO<sub>2</sub> allowances into the account under §§ 97.260 and 97.261 or a statement submitted by the CAIR authorized account representative demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.

### **Subpart GGG—CAIR SO<sub>2</sub> Allowance Transfers**

#### **§ 97.260 Submission of CAIR SO<sub>2</sub> allowance transfers.**

(a) A CAIR authorized account representative seeking recordation of a CAIR SO<sub>2</sub> allowance transfer shall submit the transfer to the Administrator. To be considered correctly submitted, the CAIR SO<sub>2</sub> allowance transfer shall include the following elements, in a format specified by the Administrator:

(1) The account numbers of both the transferor and transferee accounts;

(2) The serial number of each CAIR SO<sub>2</sub> allowance that is in the transferor account and is to be transferred; and

(3) The name and signature of the CAIR authorized account representatives of the transferor and transferee accounts and the dates signed.

(b)(1) The CAIR authorized account representative for the transferee account can meet the requirements in paragraph (a)(3) of this section by submitting, in a format prescribed by the Administrator, a statement signed by the CAIR authorized account representative and identifying each account into which any transfer of allowances, submitted on or after the date on which the Administrator receives such statement, is authorized. Such authorization shall be binding on any CAIR authorized account representative for such account and shall apply to all transfers into the account that are submitted on or after such date of receipt, unless and until the Administrator receives a statement signed by the CAIR authorized account representative retracting the authorization for the account.

(2) The statement under paragraph (b)(1) of this section shall include the following: "By this signature I authorize any transfer of allowances into each

account listed herein, except that I do not waive any remedies under State or Federal law to obtain correction of any erroneous transfers into such accounts. This authorization shall be binding on any CAIR authorized account representative for such account unless and until a statement signed by the CAIR authorized account representative retracting this authorization for the account is received by the Administrator."

#### **§ 97.261 EPA recordation.**

(a) Within 5 business days (except as necessary to perform a transfer in perpetuity of CAIR SO<sub>2</sub> allowances allocated to a CAIR SO<sub>2</sub> unit or as provided in paragraph (b) of this section) of receiving a CAIR SO<sub>2</sub> allowance transfer, the Administrator will record a CAIR SO<sub>2</sub> allowance transfer by moving each CAIR SO<sub>2</sub> allowance from the transferor account to the transferee account as specified by the request, provided that:

(1) The transfer is correctly submitted under § 97.260;

(2) The transferor account includes each CAIR SO<sub>2</sub> allowance identified by serial number in the transfer; and

(3) The transfer is in accordance with the limitation on transfer under § 74.42 of this chapter and § 74.47(c) of this chapter, as applicable.

(b) A CAIR SO<sub>2</sub> allowance transfer that is submitted for recordation after the allowance transfer deadline for a control period and that includes any CAIR SO<sub>2</sub> allowances allocated for any control period before such allowance transfer deadline will not be recorded until after the Administrator completes the deductions under § 97.254 for the control period immediately before such allowance transfer deadline.

(c) Where a CAIR SO<sub>2</sub> allowance transfer submitted for recordation fails to meet the requirements of paragraph (a) of this section, the Administrator will not record such transfer.

#### **§ 97.262 Notification.**

(a) *Notification of recordation.* Within 5 business days of recordation of a CAIR SO<sub>2</sub> allowance transfer under § 97.261, the Administrator will notify the CAIR authorized account representatives of both the transferor and transferee accounts.

(b) *Notification of non-recordation.* Within 10 business days of receipt of a CAIR SO<sub>2</sub> allowance transfer that fails to meet the requirements of § 97.261(a), the Administrator will notify the CAIR authorized account representatives of both accounts subject to the transfer of:

(1) A decision not to record the transfer, and

(2) The reasons for such non-recordation.

(c) Nothing in this section shall preclude the submission of a CAIR SO<sub>2</sub> allowance transfer for recordation following notification of non-recordation.

### **Subpart HHH—Monitoring and Reporting**

#### **§ 97.270 General requirements.**

The owners and operators, and to the extent applicable, the CAIR designated representative, of a CAIR SO<sub>2</sub> unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this subpart and in subparts F and G of part 75 of this chapter. For purposes of complying with such requirements, the definitions in § 97.202 and in § 72.2 of this chapter shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in part 75 of this chapter shall be deemed to refer to the terms "CAIR SO<sub>2</sub> unit," "CAIR designated representative," and "continuous emission monitoring system" or "CEMS" respectively, as defined in § 97.202. The owner or operator of a unit that is not a CAIR SO<sub>2</sub> unit but that is monitored under § 75.16(b)(2) of this chapter shall comply with the same monitoring, recordkeeping, and reporting requirements as a CAIR SO<sub>2</sub> unit.

(a) *Requirements for installation, certification, and data accounting.* The owner or operator of each CAIR SO<sub>2</sub> unit shall:

(1) Install all monitoring systems required under this subpart for monitoring SO<sub>2</sub> mass emissions and individual unit heat input (including all systems required to monitor SO<sub>2</sub> concentration, stack gas moisture content, stack gas flow rate, CO<sub>2</sub> or O<sub>2</sub> concentration, and fuel flow rate, as applicable, in accordance with §§ 75.11 and 75.16 of this chapter);

(2) Successfully complete all certification tests required under § 97.271 and meet all other requirements of this subpart and part 75 of this chapter applicable to the monitoring systems under paragraph (a)(1) of this section; and

(3) Record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

(b) *Compliance deadlines.* Except as provided in paragraph (e) of this section, the owner or operator shall meet the monitoring system certification and other requirements of paragraphs (a)(1) and (2) of this section on or before the following dates. The owner or

operator shall record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section on and after the following dates.

(1) For the owner or operator of a CAIR SO<sub>2</sub> unit that commences commercial operation before July 1, 2008, by January 1, 2009.

(2) For the owner or operator of a CAIR SO<sub>2</sub> unit that commences commercial operation on or after July 1, 2008, by the later of the following dates:

(i) January 1, 2009; or

(ii) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.

(3) For the owner or operator of a CAIR SO<sub>2</sub> unit for which construction of a new stack or flue or installation of add-on SO<sub>2</sub> emission controls is completed after the applicable deadline under paragraph (b)(1), (2), (4), or (5) of this section, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on SO<sub>2</sub> emissions controls.

(4) Notwithstanding the dates in paragraphs (b)(1) and (2) of this section, for the owner or operator of a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart III of this part, by the date specified in § 97.284(b).

(5) Notwithstanding the dates in paragraphs (b)(1) and (2) of this section, for the owner or operator of a CAIR SO<sub>2</sub> opt-in unit under subpart III of this part, by the date on which the CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program as provided in § 97.284(g).

(c) *Reporting data.* The owner or operator of a CAIR SO<sub>2</sub> unit that does not meet the applicable compliance date set forth in paragraph (b) of this section for any monitoring system under paragraph (a)(1) of this section shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for SO<sub>2</sub> concentration, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine SO<sub>2</sub> mass emissions and heat input in accordance with § 75.31(b)(2) or (c)(3) of this chapter or section 2.4 of appendix D to part 75 of this chapter, as applicable.

(d) *Prohibitions.* (1) No owner or operator of a CAIR SO<sub>2</sub> unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this subpart without having obtained

prior written approval in accordance with § 97.275.

(2) No owner or operator of a CAIR SO<sub>2</sub> unit shall operate the unit so as to discharge, or allow to be discharged, SO<sub>2</sub> emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(3) No owner or operator of a CAIR SO<sub>2</sub> unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording SO<sub>2</sub> mass emissions discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(4) No owner or operator of a CAIR SO<sub>2</sub> unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under this subpart, except under any one of the following circumstances:

(i) During the period that the unit is covered by an exemption under § 97.205 that is in effect;

(ii) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this subpart and part 75 of this chapter, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(iii) The CAIR designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with § 97.271(d)(3)(i).

(e) *Long-term cold storage.* The owner or operator of a CAIR SO<sub>2</sub> unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

#### **§ 97.271 Initial certification and recertification procedures.**

(a) The owner or operator of a CAIR SO<sub>2</sub> unit shall be exempt from the initial certification requirements of this section for a monitoring system under § 97.270(a)(1) if the following conditions are met:

(1) The monitoring system has been previously certified in accordance with part 75 of this chapter; and

(2) The applicable quality-assurance and quality-control requirements of § 75.21 of this chapter and appendix B and appendix D to part 75 of this chapter are fully met for the certified monitoring system described in paragraph (a)(1) of this section.

(b) The recertification provisions of this section shall apply to a monitoring system under § 97.270(a)(1) exempt from initial certification requirements under paragraph (a) of this section.

(c) [Reserved]

(d) Except as provided in paragraph (a) of this section, the owner or operator of a CAIR SO<sub>2</sub> unit shall comply with the following initial certification and recertification procedures, for a continuous monitoring system (*i.e.*, a continuous emission monitoring system and an excepted monitoring system under appendix D to part 75 of this chapter) under § 97.270(a)(1). The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology under § 75.19 of this chapter or that qualifies to use an alternative monitoring system under subpart E of part 75 of this chapter shall comply with the procedures in paragraph (e) or (f) of this section respectively.

(1) *Requirements for initial certification.* The owner or operator shall ensure that each continuous monitoring system under § 97.270(a)(1) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under § 75.20 of this chapter by the applicable deadline in § 97.270(b). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this subpart in a location where no such monitoring system was previously installed, initial certification in accordance with § 75.20 of this chapter is required.

(2) *Requirements for recertification.* Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under § 97.270(a)(1) that may significantly affect the ability of the system to accurately measure or record SO<sub>2</sub> mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of § 75.21 of this chapter or appendix B to part 75 of this chapter, the owner or operator shall recertify the monitoring system in accordance with § 75.20(b) of this chapter. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner

or operator shall recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with § 75.20(b) of this chapter. Examples of changes to a continuous emission monitoring system that require recertification include: replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter system under § 97.270(a)(1) is subject to the recertification requirements in § 75.20(g)(6) of this chapter.

(3) *Approval process for initial certification and recertification.* Paragraphs (d)(3)(i) through (iv) of this section apply to both initial certification and recertification of a continuous monitoring system under § 97.270(a)(1). For recertifications, replace the words "certification" and "initial certification" with the word "recertification", replace the word "certified" with the word "recertified," and follow the procedures in §§ 75.20(b)(5) and (g)(7) of this chapter in lieu of the procedures in paragraph (d)(3)(v) of this section.

(i) *Notification of certification.* The CAIR designated representative shall submit to the appropriate EPA Regional Office and the Administrator written notice of the dates of certification testing, in accordance with § 97.273.

(ii) *Certification application.* The CAIR designated representative shall submit to the Administrator a certification application for each monitoring system. A complete certification application shall include the information specified in § 75.63 of this chapter.

(iii) *Provisional certification date.* The provisional certification date for a monitoring system shall be determined in accordance with § 75.20(a)(3) of this chapter. A provisionally certified monitoring system may be used under the CAIR SO<sub>2</sub> Trading Program for a period not to exceed 120 days after receipt by the Administrator of the complete certification application for the monitoring system under paragraph (d)(3)(ii) of this section. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of part 75 of this chapter, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Administrator does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Administrator.

(iv) *Certification application approval process.* The Administrator will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (d)(3)(ii) of this section. In the event the Administrator does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of part 75 of this chapter and is included in the certification application will be deemed certified for use under the CAIR SO<sub>2</sub> Trading Program.

(A) *Approval notice.* If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of part 75 of this chapter, then the Administrator will issue a written notice of approval of the certification application within 120 days of receipt.

(B) *Incomplete application notice.* If the certification application is not complete, then the Administrator will issue a written notice of incompleteness that sets a reasonable date by which the CAIR designated representative must submit the additional information required to complete the certification application. If the CAIR designated representative does not comply with the notice of incompleteness by the specified date, then the Administrator may issue a notice of disapproval under paragraph (d)(3)(iv)(C) of this section. The 120-day review period shall not begin before receipt of a complete certification application.

(C) *Disapproval notice.* If the certification application shows that any monitoring system does not meet the performance requirements of part 75 of this chapter or if the certification application is incomplete and the requirement for disapproval under paragraph (d)(3)(iv)(B) of this section is met, then the Administrator will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Administrator and the data measured and recorded by each uncertified monitoring system shall not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under § 75.20(a)(3) of this chapter). The owner or operator shall follow the procedures for loss of certification in paragraph (d)(3)(v) of this section for each monitoring system that is disapproved for initial certification.

(D) *Audit decertification.* The Administrator may issue a notice of disapproval of the certification status of a monitor in accordance with § 97.272(b).

(v) *Procedures for loss of certification.* If the Administrator issues a notice of disapproval of a certification application under paragraph (d)(3)(iv)(C) of this section or a notice of disapproval of certification status under paragraph (d)(3)(iv)(D) of this section, then:

(A) The owner or operator shall substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under § 75.20(a)(4)(iii), § 75.20(g)(7), or § 75.21(e) of this chapter and continuing until the applicable date and hour specified under § 75.20(a)(5)(i) or (g)(7) of this chapter:

(1) For a disapproved SO<sub>2</sub> pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential concentration of SO<sub>2</sub> and the maximum potential flow rate, as defined in sections 2.1.1.1 and 2.1.4.1 of appendix A to part 75 of this chapter.

(2) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub> concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to part 75 of this chapter.

(3) For a disapproved fuel flowmeter system, the maximum potential fuel flow rate, as defined in section 2.4.2.1 of appendix D to part 75 of this chapter.

(B) The CAIR designated representative shall submit a notification of certification retest dates and a new certification application in accordance with paragraphs (d)(3)(i) and (ii) of this section.

(C) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Administrator's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.

(e) *Initial certification and recertification procedures for units using the low mass emission excepted methodology under § 75.19 of this chapter.* The owner or operator of a unit qualified to use the low mass emissions (LME) excepted methodology under § 75.19 of this chapter shall meet the applicable certification and recertification requirements in

§§ 75.19(a)(2) and 75.20(h) of this chapter. If the owner or operator of such a unit elects to certify a fuel flowmeter system for heat input determination, the owner or operator shall also meet the certification and recertification requirements in § 75.20(g) of this chapter.

(f) *Certification/recertification procedures for alternative monitoring systems.* The CAIR designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator under subpart E of part 75 of this chapter shall comply with the applicable notification and application procedures of § 75.20(f) of this chapter.

#### § 97.272 Out of control periods.

(a) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of part 75 of this chapter, data shall be substituted using the applicable missing data procedures in subpart D of appendix D to part 75 of this chapter.

(b) *Audit decertification.* Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under § 97.271 or the applicable provisions of part 75 of this chapter, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the permitting authority or the Administrator. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in § 97.271 for each disapproved monitoring system.

**§ 97.273 Notifications.**

The CAIR designated representative for a CAIR SO<sub>2</sub> unit shall submit written notice to the Administrator in accordance with § 75.61 of this chapter.

**§ 97.274 Recordkeeping and reporting.**  
(a) *General provisions.* The CAIR designated representative shall comply with all recordkeeping and reporting requirements in this section, the applicable recordkeeping and reporting requirements in subparts F and G of part 75 of this chapter, and the requirements of § 97.210(e)(1).

(b) *Monitoring Plans.* The owner or operator of a CAIR SO<sub>2</sub> unit shall comply with requirements of § 75.62 of this chapter and, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart III of this part, §§ 97.283 and 97.284(a).

(c) *Certification Applications.* The CAIR designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under § 97.271, including the information required under § 75.63 of this chapter.

(d) *Quarterly reports.* The CAIR designated representative shall submit quarterly reports, as follows:

(1) The CAIR designated representative shall report the SO<sub>2</sub> mass emissions data and heat input data for the CAIR SO<sub>2</sub> unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

(i) For a unit that commences commercial operation before July 1, 2008, the calendar quarter covering January 1, 2009 through March 31, 2009;

(ii) For a unit that commences commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under § 97.270(b), unless that quarter is the third or fourth quarter of 2008, in which case reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009;

(iii) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart III of this part, the calendar quarter corresponding to the date specified in § 97.284(b); and

(iv) Notwithstanding paragraphs (d)(1)(i) and (ii) of this section, for a CAIR SO<sub>2</sub> opt-in unit under subpart III of this part, the calendar quarter

corresponding to the date on which the CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program as provided in § 97.284(g).

(2) The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in § 75.64 of this chapter.

(3) For CAIR SO<sub>2</sub> units that are also subject to an Acid Rain emissions limitation or the CAIR NO<sub>x</sub> Annual Trading Program, CAIR NO<sub>x</sub> Ozone Season Trading Program, or Hg Budget Trading Program, quarterly reports shall include the applicable data and information required by subparts F through I of part 75 of this chapter as applicable, in addition to the SO<sub>2</sub> mass emission data, heat input data, and other information required by this subpart.

(e) *Compliance certification.* The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(1) The monitoring data submitted were recorded in accordance with the applicable requirements of this subpart and part 75 of this chapter, including the quality assurance procedures and specifications; and

(2) For a unit with add-on SO<sub>2</sub> emission controls and for all hours where SO<sub>2</sub> data are substituted in accordance with § 75.34(a)(1) of this chapter, the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to part 75 of this chapter and the substitute data values do not systematically underestimate SO<sub>2</sub> emissions.

**§ 97.275 Petitions.**

The CAIR designated representative of a CAIR SO<sub>2</sub> unit may submit a petition under § 75.66 of this chapter to the Administrator requesting approval to apply an alternative to any requirement of this subpart. Application of an alternative to any requirement of this subpart is in accordance with this subpart only to the extent that the petition is approved in writing by the Administrator, in consultation with the permitting authority.

**Subpart III—CAIR SO<sub>2</sub> Opt-in Units****§ 97.280 Applicability.**

A CAIR SO<sub>2</sub> opt-in unit must be a unit that:

(a) Is located in a State that submits, and for which the Administrator approves, a State implementation plan revision in accordance with § 51.124(r)(1), (2), or (3) of this chapter establishing procedures concerning CAIR opt-in units;

(b) Is not a CAIR SO<sub>2</sub> unit under § 97.204 and is not covered by a retired unit exemption under § 97.205 that is in effect;

(c) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect and is not an opt-in source under part 74 of this chapter;

(d) Has or is required or qualified to have a title V operating permit or other federally enforceable permit; and

(e) Vents all of its emissions to a stack and can meet the monitoring, recordkeeping, and reporting requirements of subpart HH of this part.

**§ 97.281 General.**

(a) Except as otherwise provided in §§ 97.201 through 97.204, §§ 97.206 through 97.208, and subparts BBB and CCC and subparts FFF through HHH of this part, a CAIR SO<sub>2</sub> opt-in unit shall be treated as a CAIR SO<sub>2</sub> unit for purposes of applying such sections and subparts of this part.

(b) Solely for purposes of applying, as provided in this subpart, the requirements of subpart HHH of this part to a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, such unit shall be treated as a CAIR SO<sub>2</sub> unit before issuance of a CAIR opt-in permit for such unit.

**§ 97.282 CAIR designated representative.**

Any CAIR SO<sub>2</sub> opt-in unit, and any unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, located at the same source as one or more CAIR SO<sub>2</sub> units shall have the same CAIR designated representative and alternate CAIR designated representative as such CAIR SO<sub>2</sub> units.

**§ 97.283 Applying for CAIR opt-in permit.**

(a) *Applying for initial CAIR opt-in permit.* The CAIR designated representative of a unit meeting the requirements for a CAIR SO<sub>2</sub> opt-in unit in § 97.280 may apply for an initial CAIR opt-in permit at any time, except as provided under § 97.286(f) and (g),



and, in order to apply, must submit the following:

(1) A complete CAIR permit application under § 97.222;

(2) A certification, in a format specified by the permitting authority, that the unit:

(i) Is not a CAIR SO<sub>2</sub> unit under § 97.204 and is not covered by a retired unit exemption under § 97.205 that is in effect;

(ii) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect;

(iii) Is not, and so long as the unit is a CAIR SO<sub>2</sub> opt-in unit, will not become, an opt-in source under part 74 of this chapter;

(iv) Vents all of its emissions to a stack, and

(v) Has documented heat input for more than 876 hours during the 6 months immediately preceding submission of the CAIR permit application under § 97.222;

(3) A monitoring plan in accordance with subpart HHH of this part;

(4) A complete certificate of representation under § 97.213 consistent with § 97.282, if no CAIR designated representative has been previously designated for the source that includes the unit; and

(5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR SO<sub>2</sub> allowances under § 97.288(b) or § 97.288(c) (subject to the conditions in §§ 97.284(h) and 97.286(g)), to the extent such allocation is provided in a State implementation plan revision submitted in accordance with § 51.124(r)(1), (2), or (3) of this chapter and approved by the Administrator. If allocation under § 97.288(c) is requested, this statement shall include a statement that the owners and operators of the unit intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

(b) *Duty to reapply.* (1) The CAIR designated representative of a CAIR SO<sub>2</sub> opt-in unit shall submit a complete CAIR permit application under § 97.222 to renew the CAIR opt-in unit permit in accordance with the permitting authority's regulations for title V operating permits, or the permitting authority's regulations for other federally enforceable permits if applicable, addressing permit renewal.

(2) Unless the permitting authority issues a notification of acceptance of withdrawal of the CAIR SO<sub>2</sub> opt-in unit from the CAIR SO<sub>2</sub> Trading Program in accordance with § 97.286 or the unit becomes a CAIR SO<sub>2</sub> unit under

§ 97.204, the CAIR SO<sub>2</sub> opt-in unit shall remain subject to the requirements for a CAIR SO<sub>2</sub> opt-in unit, even if the CAIR designated representative for the CAIR SO<sub>2</sub> opt-in unit fails to submit a CAIR permit application that is required for renewal of the CAIR opt-in permit under paragraph (b)(1) of this section.

#### **§ 97.284 Opt-in process.**

The permitting authority will issue or deny a CAIR opt-in permit for a unit for which an initial application for a CAIR opt-in permit under § 97.183 is submitted in accordance with the following, to the extent provided in a State implementation plan revision submitted in accordance with § 51.124(r)(1), (2), or (3) of this chapter and approved by the Administrator:

(a) *Interim review of monitoring plan.*

The permitting authority and the Administrator will determine, on an interim basis, the sufficiency of the monitoring plan accompanying the initial application for a CAIR opt-in permit under § 97.283. A monitoring plan is sufficient, for purposes of interim review, if the plan appears to contain information demonstrating that the SO<sub>2</sub> emissions rate and heat input of the unit and all other applicable parameters are monitored and reported in accordance with subpart HHH of this part. A determination of sufficiency shall not be construed as acceptance or approval of the monitoring plan.

(b) *Monitoring and reporting.* (1)(i) If the permitting authority and the Administrator determine that the monitoring plan is sufficient under paragraph (a) of this section, the owner or operator shall monitor and report the SO<sub>2</sub> emissions rate and the heat input of the unit and all other applicable parameters, in accordance with subpart HHH of this part, starting on the date of certification of the appropriate monitoring systems under subpart HHH of this part and continuing until a CAIR opt-in permit is denied under § 97.284(f) or, if a CAIR opt-in permit is issued, the date and time when the unit is withdrawn from the CAIR SO<sub>2</sub> Trading Program in accordance with § 97.286.

(ii) The monitoring and reporting under paragraph (b)(1)(i) of this section shall include the entire control period immediately before the date on which the unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g), during which period monitoring system availability must not be less than 90 percent under subpart HHH of this part and the unit must be in full compliance with any applicable State or Federal emissions or emissions-related requirements.

(2) To the extent the SO<sub>2</sub> emissions rate and the heat input of the unit are monitored and reported in accordance with subpart HHH of this part for one or more control periods, in addition to the control period under paragraph (b)(1)(ii) of this section, during which control periods monitoring system availability is not less than 90 percent under subpart HHH of this part and the unit is in full compliance with any applicable State or Federal emissions or emissions-related requirements and which control periods begin not more than 3 years before the unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g), such information shall be used as provided in paragraphs (c) and (d) of this section.

(c) *Baseline heat input.* The unit's baseline heat rate shall equal:

(1) If the unit's SO<sub>2</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's total heat input (in mmBtu) for the control period; or

(2) If the unit's SO<sub>2</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, the average of the amounts of the unit's total heat input (in mmBtu) for the control periods under paragraphs (b)(1)(ii) and (2) of this section.

(d) *Baseline SO<sub>2</sub> emission rate.* The unit's baseline SO<sub>2</sub> emission rate shall equal:

(1) If the unit's SO<sub>2</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's SO<sub>2</sub> emissions rate (in lb/mmBtu) for the control period;

(2) If the unit's SO<sub>2</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit does not have add-on SO<sub>2</sub> emission controls during any such control periods, the average of the amounts of the unit's SO<sub>2</sub> emissions rate (in lb/mmBtu) for the control periods under paragraphs (b)(1)(ii) and (b)(2) of this section; or

(3) If the unit's SO<sub>2</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit has add-on SO<sub>2</sub> emission controls during any such control periods, the average of the amounts of the unit's SO<sub>2</sub> emissions rate (in lb/mmBtu) for such control periods during which the unit has add-on SO<sub>2</sub> emission controls.

(e) *Issuance of CAIR opt-in permit.* After calculating the baseline heat input

and the baseline SO<sub>2</sub> emissions rate for the unit under paragraphs (c) and (d) of this section and if the permitting authority determines that the CAIR designated representative shows that the unit meets the requirements for a CAIR SO<sub>2</sub> opt-in unit in § 97.280 and meets the elements certified in § 97.283(a)(2), the permitting authority will issue a CAIR opt-in permit. The permitting authority will provide a copy of the CAIR opt-in permit to the Administrator, who will then establish a compliance account for the source that includes the CAIR SO<sub>2</sub> opt-in unit unless the source already has a compliance account.

(f) *Issuance of denial of CAIR opt-in permit.* Notwithstanding paragraphs (a) through (e) of this section, if at any time before issuance of a CAIR opt-in permit for the unit, the permitting authority determines that the CAIR designated representative fails to show that the unit meets the requirements for a CAIR SO<sub>2</sub> opt-in unit in § 97.280 or meets the elements certified in § 97.283(a)(2), the permitting authority will issue a denial of a CAIR opt-in permit for the unit.

(g) *Date of entry into CAIR SO<sub>2</sub> Trading Program.* A unit for which an initial CAIR opt-in permit is issued by the permitting authority shall become a CAIR SO<sub>2</sub> opt-in unit, and a CAIR SO<sub>2</sub> unit, as of the later of January 1, 2010 or January 1 of the first control period during which such CAIR opt-in permit is issued.

(h) *Repowered CAIR SO<sub>2</sub> opt-in unit.* (1) If CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit providing for, allocation to a CAIR SO<sub>2</sub> opt-in unit of CAIR SO<sub>2</sub> allowances under § 97.288(c) and such unit is repowered after its date of entry into the CAIR SO<sub>2</sub> Trading Program under paragraph (g) of this section, the repowered unit shall be treated as a CAIR SO<sub>2</sub> opt-in unit replacing the original CAIR SO<sub>2</sub> opt-in unit, as of the date of start-up of the repowered unit's combustion chamber.

(2) Notwithstanding paragraphs (c) and (d) of this section, as of the date of start-up under paragraph (h)(1) of this section, the repowered unit shall be deemed to have the same date of commencement of operation, date of commencement of commercial operation, baseline heat input, and baseline SO<sub>2</sub> emission rate as the original CAIR SO<sub>2</sub> opt-in unit, and the original CAIR SO<sub>2</sub> opt-in unit shall no longer be treated as a CAIR SO<sub>2</sub> opt-in unit or a CAIR SO<sub>2</sub> unit.

#### § 97.285 CAIR opt-in permit contents.

(a) Each CAIR opt-in permit will contain:

- (1) All elements required for a complete CAIR permit application under § 97.222;
- (2) The certification in § 97.283(a)(2);
- (3) The unit's baseline heat input under § 97.284(c);
- (4) The unit's baseline SO<sub>2</sub> emission rate under § 97.284(d);
- (5) A statement whether the unit is to be allocated CAIR SO<sub>2</sub> allowances under § 97.288(b) or § 97.288(c) (subject to the conditions in §§ 97.284(h) and 97.286(g));
- (6) A statement that the unit may withdraw from the CAIR SO<sub>2</sub> Trading Program only in accordance with § 97.286; and
- (7) A statement that the unit is subject to, and the owners and operators of the unit must comply with, the requirements of § 97.287.

(b) Each CAIR opt-in permit is deemed to incorporate automatically the definitions of terms under § 97.202 and, upon recordation by the Administrator under subpart FFF or GGG of this part or this subpart, every allocation, transfer, or deduction of CAIR SO<sub>2</sub> allowances to or from the compliance account of the source that includes a CAIR SO<sub>2</sub> opt-in unit covered by the CAIR opt-in permit.

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR SO<sub>2</sub> opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

#### § 97.286 Withdrawal from CAIR SO<sub>2</sub> Trading Program.

Except as provided under paragraph (g) of this section, a CAIR SO<sub>2</sub> opt-in unit may withdraw from the CAIR SO<sub>2</sub> Trading Program, but only if the permitting authority issues a notification to the CAIR designated representative of the CAIR SO<sub>2</sub> opt-in unit of the acceptance of the withdrawal of the CAIR SO<sub>2</sub> opt-in unit in accordance with paragraph (d) of this section.

(a) *Requesting withdrawal.* In order to withdraw a CAIR SO<sub>2</sub> opt-in unit from the CAIR SO<sub>2</sub> Trading Program, the CAIR designated representative of the CAIR SO<sub>2</sub> opt-in unit shall submit to the permitting authority a request to withdraw effective as of midnight of December 31 of a specified calendar year, which date must be at least 4 years after December 31 of the year of entry into the CAIR SO<sub>2</sub> Trading Program under § 97.284(g). The request must be submitted no later than 90 days before the requested effective date of withdrawal.

(b) *Conditions for withdrawal.* Before a CAIR SO<sub>2</sub> opt-in unit covered by a request under paragraph (a) of this section may withdraw from the CAIR SO<sub>2</sub> Trading Program and the CAIR opt-in permit may be terminated under paragraph (e) of this section, the following conditions must be met:

(1) For the control period ending on the date on which the withdrawal is to be effective, the source that includes the CAIR SO<sub>2</sub> opt-in unit must meet the requirement to hold CAIR SO<sub>2</sub> allowances under § 97.206(c) and cannot have any excess emissions.

(2) After the requirement for withdrawal under paragraph (b)(1) of this section is met, the Administrator will deduct from the compliance account of the source that includes the CAIR SO<sub>2</sub> opt-in unit CAIR SO<sub>2</sub> allowances equal in amount to and allocated for the same or a prior control period as any CAIR SO<sub>2</sub> allowances allocated to the CAIR SO<sub>2</sub> opt-in unit under § 97.288 for any control period for which the withdrawal is to be effective. If there are no remaining CAIR SO<sub>2</sub> units at the source, the Administrator will close the compliance account, and the owners and operators of the CAIR SO<sub>2</sub> opt-in unit may submit a CAIR SO<sub>2</sub> allowance transfer for any remaining CAIR SO<sub>2</sub> allowances to another CAIR SO<sub>2</sub> Allowance Tracking System in accordance with subpart GGG of this part.

(c) *Notification.* (1) After the requirements for withdrawal under paragraphs (a) and (b) of this section are met (including deduction of the full amount of CAIR SO<sub>2</sub> allowances required), the permitting authority will issue a notification to the CAIR designated representative of the CAIR SO<sub>2</sub> opt-in unit of the acceptance of the withdrawal of the CAIR SO<sub>2</sub> opt-in unit as of midnight on December 31 of the calendar year for which the withdrawal was requested.

(2) If the requirements for withdrawal under paragraphs (a) and (b) of this section are not met, the permitting authority will issue a notification to the CAIR designated representative of the CAIR SO<sub>2</sub> opt-in unit that the CAIR SO<sub>2</sub> opt-in unit's request to withdraw is denied. Such CAIR SO<sub>2</sub> opt-in unit shall continue to be a CAIR SO<sub>2</sub> opt-in unit.

(d) *Permit amendment.* After the permitting authority issues a notification under paragraph (c)(1) of this section that the requirements for withdrawal have been met, the permitting authority will revise the CAIR permit covering the CAIR SO<sub>2</sub> opt-in unit to terminate the CAIR opt-in permit for such unit as of the effective date specified under paragraph (c)(1) of

this section. The unit shall continue to be a CAIR SO<sub>2</sub> opt-in unit until the effective date of the termination and shall comply with all requirements under the CAIR SO<sub>2</sub> Trading Program concerning any control periods for which the unit is a CAIR SO<sub>2</sub> opt-in unit, even if such requirements arise or must be complied with after the withdrawal takes effect.

(e) *Reapplication upon failure to meet conditions of withdrawal.* If the permitting authority denies the CAIR SO<sub>2</sub> opt-in unit's request to withdraw, the CAIR designated representative may submit another request to withdraw in accordance with paragraphs (a) and (b) of this section.

(f) *Ability to reapply to the CAIR SO<sub>2</sub> Trading Program.* Once a CAIR SO<sub>2</sub> opt-in unit withdraws from the CAIR SO<sub>2</sub> Trading Program and its CAIR opt-in permit is terminated under this section, the CAIR designated representative may not submit another application for a CAIR opt-in permit under § 97.283 for such CAIR SO<sub>2</sub> opt-in unit before the date that is 4 years after the date on which the withdrawal became effective. Such new application for a CAIR opt-in permit will be treated as an initial application for a CAIR opt-in permit under § 97.284.

(g) *Inability to withdraw.* Notwithstanding paragraphs (a) through (f) of this section, a CAIR SO<sub>2</sub> opt-in unit shall not be eligible to withdraw from the CAIR SO<sub>2</sub> Trading Program if the CAIR designated representative of the CAIR SO<sub>2</sub> opt-in unit requests, and the permitting authority issues a CAIR opt-in permit providing for, allocation to the CAIR SO<sub>2</sub> opt-in unit of CAIR SO<sub>2</sub> allowances under § 97.288(c).

#### **§ 97.287 Change in regulatory status.**

(a) *Notification.* If a CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204, then the CAIR designated representative shall notify in writing the permitting authority and the Administrator of such change in the CAIR SO<sub>2</sub> opt-in unit's regulatory status, within 30 days of such change.

(b) *Permitting authority's and Administrator's actions.* (1) If a CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204, the permitting authority will revise the CAIR SO<sub>2</sub> opt-in unit's CAIR opt-in permit to meet the requirements of a CAIR permit under § 97.223, and remove the CAIR opt-in permit provisions, as of the date on which the CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204.

(2)(i) The Administrator will deduct from the compliance account of the source that includes the CAIR SO<sub>2</sub> opt-

in unit that becomes a CAIR SO<sub>2</sub> unit under § 97.204, CAIR SO<sub>2</sub> allowances equal in amount to and allocated for the same or a prior control period as:

(A) Any CAIR SO<sub>2</sub> allowances allocated to the CAIR SO<sub>2</sub> opt-in unit under § 97.288 for any control period after the date on which the CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204; and

(B) If the date on which the CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204 is not December 31, the CAIR SO<sub>2</sub> allowances allocated to the CAIR SO<sub>2</sub> opt-in unit under § 97.288 for the control period that includes the date on which the CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204, multiplied by the ratio of the number of days, in the control period, starting with the date on which the CAIR SO<sub>2</sub> opt-in unit becomes a CAIR SO<sub>2</sub> unit under § 97.204 divided by the total number of days in the control period and rounded to the nearest whole allowance as appropriate.

(ii) The CAIR designated representative shall ensure that the compliance account of the source that includes the CAIR SO<sub>2</sub> unit that becomes a CAIR SO<sub>2</sub> unit under § 97.204 contains the CAIR SO<sub>2</sub> allowances necessary for completion of the deduction under paragraph (b)(2)(i) of this section.

#### **§ 97.288 CAIR SO<sub>2</sub> allowance allocations to CAIR SO<sub>2</sub> opt-in units.**

(a) *Timing requirements.* (1) When the CAIR opt-in permit is issued under § 97.284(e), the permitting authority will allocate CAIR SO<sub>2</sub> allowances to the CAIR SO<sub>2</sub> opt-in unit, and submit to the Administrator the allocation for the control period in which a CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g), in accordance with paragraph (b) or (c) of this section.

(2) By no later than October 31 of the control period after the control period in which a CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g) and October 31 of each year thereafter, the permitting authority will allocate CAIR SO<sub>2</sub> allowances to the CAIR SO<sub>2</sub> opt-in unit, and submit to the Administrator the allocation for the control period that includes such submission deadline and in which the unit is a CAIR SO<sub>2</sub> opt-in unit, in accordance with paragraph (b) or (c) of this section.

(b) *Calculation of allocation.* For each control period for which a CAIR SO<sub>2</sub> opt-in unit is to be allocated CAIR SO<sub>2</sub> allowances, the permitting authority will allocate in accordance with the following procedures, if provided in a

State implementation plan revision submitted in accordance with § 51.124(r)(1), (2), or (3) of this chapter and approved by the Administrator:

(1) The heat input (in mmBtu) used for calculating the CAIR SO<sub>2</sub> allowance allocation will be the lesser of:

(i) The CAIR SO<sub>2</sub> opt-in unit's baseline heat input determined under § 97.284(c); or

(ii) The CAIR SO<sub>2</sub> opt-in unit's heat input, as determined in accordance with subpart HHH of this part, for the immediately prior control period, except when the allocation is being calculated for the control period in which the CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g).

(2) The SO<sub>2</sub> emission rate (in lb/mmBtu) used for calculating CAIR SO<sub>2</sub> allowance allocations will be the lesser of:

(i) The CAIR SO<sub>2</sub> opt-in unit's baseline SO<sub>2</sub> emissions rate (in lb/mmBtu) determined under § 97.284(d) and multiplied by 70 percent; or

(ii) The most stringent State or Federal SO<sub>2</sub> emissions limitation applicable to the CAIR SO<sub>2</sub> opt-in unit at any time during the control period for which CAIR SO<sub>2</sub> allowances are to be allocated.

(3) The permitting authority will allocate CAIR SO<sub>2</sub> allowances to the CAIR SO<sub>2</sub> opt-in unit with a tonnage equivalent equal to, or less than by the smallest possible amount, the heat input under paragraph (b)(1) of this section, multiplied by the SO<sub>2</sub> emission rate under paragraph (b)(2) of this section, and divided by 2,000 lb/ton.

(c) Notwithstanding paragraph (b) of this section and if the CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit (based on a demonstration of the intent to repower stated under § 97.283(a)(5)) providing for, allocation to a CAIR SO<sub>2</sub> opt-in unit of CAIR SO<sub>2</sub> allowances under this paragraph (subject to the conditions in §§ 97.284(h) and 97.286(g)), the permitting authority will allocate to the CAIR SO<sub>2</sub> opt-in unit as follows, if provided in a State implementation plan revision submitted in accordance with § 51.124(r)(1), (2), or (3) of this chapter and approved by the Administrator:

(1) For each control period in 2010 through 2014 for which the CAIR SO<sub>2</sub> opt-in unit is to be allocated CAIR SO<sub>2</sub> allowances,

(i) The heat input (in mmBtu) used for calculating CAIR SO<sub>2</sub> allowance allocations will be determined as described in paragraph (b)(1) of this section.

(ii) The SO<sub>2</sub> emission rate (in lb/mmBtu) used for calculating CAIR SO<sub>2</sub> allowance allocations will be the lesser of:

(A) The CAIR SO<sub>2</sub> opt-in unit's baseline SO<sub>2</sub> emissions rate (in lb/mmBtu) determined under § 97.284(d); or

(B) The most stringent State or Federal SO<sub>2</sub> emissions limitation applicable to the CAIR SO<sub>2</sub> opt-in unit at any time during the control period in which the CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g).

(iii) The permitting authority will allocate CAIR SO<sub>2</sub> allowances to the CAIR SO<sub>2</sub> opt-in unit with a tonnage equivalent equal to, or less than by the smallest possible amount, the heat input under paragraph (c)(1)(i) of this section, multiplied by the SO<sub>2</sub> emission rate under paragraph (c)(1)(ii) of this section, and divided by 2,000 lb/ton.

(2) For each control period in 2015 and thereafter for which the CAIR SO<sub>2</sub> opt-in unit is to be allocated CAIR SO<sub>2</sub> allowances,

(i) The heat input (in mmBtu) used for calculating the CAIR SO<sub>2</sub> allowance allocations will be determined as described in paragraph (b)(1) of this section.

(ii) The SO<sub>2</sub> emission rate (in lb/mmBtu) used for calculating the CAIR SO<sub>2</sub> allowance allocation will be the lesser of:

(A) The CAIR SO<sub>2</sub> opt-in unit's baseline SO<sub>2</sub> emissions rate (in lb/mmBtu) determined under § 97.284(d) multiplied by 10 percent; or

(B) The most stringent State or Federal SO<sub>2</sub> emissions limitation applicable to the CAIR SO<sub>2</sub> opt-in unit at any time during the control period for which CAIR SO<sub>2</sub> allowances are to be allocated.

(iii) The permitting authority will allocate CAIR SO<sub>2</sub> allowances to the CAIR SO<sub>2</sub> opt-in unit with a tonnage equivalent equal to, or less than by the smallest possible amount, the heat input under paragraph (c)(2)(i) of this section, multiplied by the SO<sub>2</sub> emission rate under paragraph (c)(2)(ii) of this section, and divided by 2,000 lb/ton.

(d) *Recordation.* If provided in a State implementation plan revision submitted in accordance with § 51.124(r)(1), (2), or (3) of this chapter and approved by the Administrator:

(1) The Administrator will record, in the compliance account of the source that includes the CAIR SO<sub>2</sub> opt-in unit, the CAIR SO<sub>2</sub> allowances allocated by the permitting authority to the CAIR SO<sub>2</sub> opt-in unit under paragraph (a)(1) of this section.

(2) By December 1 of the control period in which a CAIR SO<sub>2</sub> opt-in unit enters the CAIR SO<sub>2</sub> Trading Program under § 97.284(g) and December 1 of each year thereafter, the Administrator will record, in the compliance account of the source that includes the CAIR SO<sub>2</sub> opt-in unit, the CAIR SO<sub>2</sub> allowances allocated by the permitting authority to the CAIR SO<sub>2</sub> opt-in unit under paragraph (a)(2) of this section.

#### **Appendix A to Subpart III of Part 97—States With Approved State Implementation Plan Revisions Concerning CAIR SO<sub>2</sub> Opt-In Units**

1. The following States have State Implementation Plan revisions under § 51.124(r) of this chapter approved by the Administrator and establishing procedures providing for CAIR SO<sub>2</sub> opt-in units under subpart III of this part and allocation of CAIR SO<sub>2</sub> allowances to such units under § 97.288(b):

[Reserved]

2. The following States have State Implementation Plan revisions under § 51.124(r) of this chapter approved by the Administrator and establishing procedures providing for CAIR SO<sub>2</sub> opt-in units under subpart III of this part and allocation of CAIR SO<sub>2</sub> allowances to such units under § 97.288(c):

[Reserved]

■ 5. Part 97 is amended by adding subparts AAAA through IIII to read as follows:

#### **Subpart AAAA—CAIR NO<sub>x</sub> Ozone Season Trading Program General Provisions**

Sec.

- 97.301 Purpose.
- 97.302 Definitions.
- 97.303 Measurements, abbreviations, and acronyms.
- 97.304 Applicability.
- 97.305 Retired unit exemption.
- 97.306 Standard requirements.
- 97.307 Computation of time.
- 97.308 Appeal procedures.

#### **Appendix A to Subpart AAAA of Part 97—States With Approved State Implementation Plan Revisions Concerning Applicability**

#### **Subpart BBBB—CAIR Designated Representative for CAIR NO<sub>x</sub> Ozone Season Sources**

- 97.310 Authorization and responsibilities of CAIR designated representative.
- 97.311 Alternate CAIR designated representative.
- 97.312 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.
- 97.313 Certificate of representation.
- 97.314 Objections concerning CAIR designated representative.
- 97.315 Delegation by CAIR designated representative and alternate CAIR designated representative.

#### **Subpart CCCC—Permits**

- 97.320 General CAIR NO<sub>x</sub> Ozone Season Trading Program permit requirements.
- 97.321 Submission of CAIR permit applications.
- 97.322 Information requirements for CAIR permit applications.
- 97.323 CAIR permit contents and term.
- 97.324 CAIR permit revisions.

#### **Subpart DDDD—[Reserved]**

#### **Subpart EEEE—CAIR NO<sub>x</sub> Ozone Season Allowance Allocations**

- 97.340 State trading budgets.
- 97.341 Timing requirements for CAIR NO<sub>x</sub> Ozone Season allowance allocations.
- 97.342 CAIR NO<sub>x</sub> Ozone Season allowance allocations.
- 97.343 Alternative of allocation of CAIR NO<sub>x</sub> Ozone Season allowances by permitting authority.

#### **Appendix A to Subpart EEEE of Part 97—States With Approved State Implementation Plan Revisions Concerning Allocations**

#### **Subpart FFFF—CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System**

- 97.350 [Reserved]
- 97.351 Establishment of accounts.
- 97.352 Responsibilities of CAIR authorized account representative.
- 97.353 Recordation of CAIR NO<sub>x</sub> Ozone Season allowance allocations.
- 97.354 Compliance with CAIR NO<sub>x</sub> emissions limitation.
- 97.355 Banking.
- 97.356 Account error.
- 97.357 Closing of general accounts.

#### **Subpart GGGG—CAIR NO<sub>x</sub> Ozone Season Allowance Transfers**

- 97.360 Submission of CAIR NO<sub>x</sub> Ozone Season allowance transfers.
- 97.361 EPA recordation.
- 97.362 Notification.

#### **Subpart HHHH—Monitoring and Reporting**

- 97.370 General requirements.
- 97.371 Initial certification and recertification procedures.
- 97.372 Out of control periods.
- 97.373 Notifications.
- 97.374 Recordkeeping and reporting.
- 97.375 Petitions.

#### **Subpart IIII—CAIR NO<sub>x</sub> Ozone Season Opt-in Units**

- 97.380 Applicability.
- 97.381 General.
- 97.382 CAIR designated representative.
- 97.383 Applying for CAIR opt-in permit.
- 97.384 Opt-in process.
- 97.385 CAIR opt-in permit contents.
- 97.386 Withdrawal from CAIR NO<sub>x</sub> Ozone Season Trading Program.
- 97.387 Change in regulatory status.
- 97.388 CAIR NO<sub>x</sub> Ozone Season allowance allocations to CAIR NO<sub>x</sub> Ozone Season opt-in units.

**Appendix A to Subpart IIII of Part 97—  
States With Approved State Implementation  
Plan Revisions Concerning CAIR NO<sub>x</sub> Ozone  
Season Opt-In Units**

**Subpart AAAA—CAIR NO<sub>x</sub> Ozone  
Season Trading Program General  
Provisions**

**§ 97.301 Purpose.**

This subpart and subparts BBBB through IIII set forth the general provisions and the designated representative, permitting, allowance, monitoring, and opt-in provisions for the Federal Clean Air Interstate Rule (CAIR) NO<sub>x</sub> Ozone Season Trading Program, under section 110 of the Clean Air Act and § 52.35 of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides.

**§ 97.302 Definitions.**

The terms used in this subpart and subparts BBBB through IIII shall have the meanings set forth in this section as follows:

*Account number* means the identification number given by the Administrator to each CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account.

*Acid Rain emissions limitation* means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.

*Acid Rain Program* means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and parts 72 through 78 of this chapter.

*Administrator* means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.

*Allocate or allocation* means, with regard to CAIR NO<sub>x</sub> Ozone Season allowances, the determination by a permitting authority or the Administrator of the amount of such CAIR NO<sub>x</sub> Ozone Season allowances to be initially credited to a CAIR NO<sub>x</sub> Ozone Season unit, a new unit set-aside, or other entity.

*Allowance transfer deadline* means, for a control period, midnight of November 30 (if it is a business day), or midnight of the first business day thereafter (if November 30 is not a business day), immediately following the control period and is the deadline by which a CAIR NO<sub>x</sub> Ozone Season allowance transfer must be submitted for recordation in a CAIR NO<sub>x</sub> Ozone Season source's compliance account in order to be used to meet the source's CAIR NO<sub>x</sub> Ozone Season emissions

limitation for such control period in accordance with § 97.354.

*Alternate CAIR designated representative* means, for a CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source in accordance with subparts BBBB and IIII of this part, to act on behalf of the CAIR designated representative in matters pertaining to the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also a CAIR NO<sub>x</sub> source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also a CAIR SO<sub>2</sub> source, then this natural person shall be the same person as the alternate CAIR designated representative under the CAIR SO<sub>2</sub> Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Acid Rain Program, then this natural person shall be the same person as the alternate designated representative under the Acid Rain Program. If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the alternate Hg designated representative under the Hg Budget Trading Program.

*Automated data acquisition and handling system or DAHS* means that component of the continuous emission monitoring system, or other emissions monitoring system approved for use under subpart HHHH of this part, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by subpart HHHH of this part.

*Boiler* means an enclosed fossil- or other-fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

*Bottoming-cycle cogeneration unit* means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

*CAIR authorized account representative* means, with regard to a general account, a responsible natural person who is authorized, in accordance

with subparts BBBB, FFFF, and IIII of this part, to transfer and otherwise dispose of CAIR NO<sub>x</sub> Ozone Season allowances held in the general account and, with regard to a compliance account, the CAIR designated representative of the source.

*CAIR designated representative* means, for a CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source, in accordance with subparts BBBB and IIII of this part, to represent and legally bind each owner and operator in matters pertaining to the CAIR NO<sub>x</sub> Ozone Season Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also a CAIR NO<sub>x</sub> source, then this natural person shall be the same person as the CAIR designated representative under the CAIR NO<sub>x</sub> Annual Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also a CAIR SO<sub>2</sub> source, then this natural person shall be the same person as the CAIR designated representative under the CAIR SO<sub>2</sub> Trading Program. If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Acid Rain Program, then this natural person shall be the same person as the designated representative under the Acid Rain Program. If the CAIR NO<sub>x</sub> Ozone Season source is also subject to the Hg Budget Trading Program, then this natural person shall be the same person as the Hg designated representative under the Hg Budget Trading Program.

*CAIR NO<sub>x</sub> Annual Trading Program* means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AA through II of this part and §§ 51.123(p) and 52.35 of this chapter or approved and administered by the Administrator in accordance with subparts AA through II of part 96 of this chapter and § 51.123(o)(1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and nitrogen oxides.

*CAIR NO<sub>x</sub> Ozone Season allowance* means a limited authorization issued by a permitting authority or the Administrator under subpart EEEE of this part, § 97.388, or provisions of a State implementation plan that are approved under § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd), or (ee) of this chapter, to emit one ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NO<sub>x</sub> Ozone Season Trading Program or a limited authorization issued by a

permitting authority for a control period during 2003 through 2008 under the NO<sub>x</sub> Budget Trading Program in accordance with § 51.121(p) of this chapter to emit one ton of nitrogen oxides during a control period, provided that the provision in § 51.121(b)(2)(ii)(E) of this chapter shall not be used in applying this definition and the limited authorization shall not have been used to meet the allowance-holding requirement under the NO<sub>x</sub> Budget Trading Program. An authorization to emit nitrogen oxides that is not issued under subpart EEEE of this part, § 97.388, or provisions of a State implementation plan that are approved under § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd), or (ee) of this chapter or under the NO<sub>x</sub> Budget Trading Program as described in the prior sentence shall not be a CAIR NO<sub>x</sub> Ozone Season allowance.

*CAIR NO<sub>x</sub> Ozone Season allowance deduction or deduct CAIR NO<sub>x</sub> Ozone Season allowances* means the permanent withdrawal of CAIR NO<sub>x</sub> Ozone Season allowances by the Administrator from a compliance account, *e.g.*, in order to account for a specified number of tons of total nitrogen oxides emissions from all CAIR NO<sub>x</sub> Ozone Season units at a CAIR NO<sub>x</sub> Ozone Season source for a control period, determined in accordance with subpart HHHH of this part, or to account for excess emissions.

*CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System* means the system by which the Administrator records allocations, deductions, and transfers of CAIR NO<sub>x</sub> Ozone Season allowances under the CAIR NO<sub>x</sub> Ozone Season Trading Program. Such allowances will be allocated, held, deducted, or transferred only as whole allowances.

*CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account* means an account in the CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of CAIR NO<sub>x</sub> Ozone Season allowances.

*CAIR NO<sub>x</sub> Ozone Season allowances held or hold CAIR NO<sub>x</sub> Ozone Season allowances* means the CAIR NO<sub>x</sub> Ozone Season allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with subparts FFFF, GGGG, and IIII of this part, in a CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account.

*CAIR NO<sub>x</sub> Ozone Season emissions limitation* means, for a CAIR NO<sub>x</sub> Ozone Season source, the tonnage equivalent, in NO<sub>x</sub> emissions in a control period, of the CAIR NO<sub>x</sub> Ozone

Season allowances available for deduction for the source under § 97.354(a) and (b) for the control period.

*CAIR NO<sub>x</sub> Ozone Season source* means a source that includes one or more CAIR NO<sub>x</sub> Ozone Season units.

*CAIR NO<sub>x</sub> Ozone Season Trading Program* means a multi-state nitrogen oxides air pollution control and emission reduction program established by the Administrator in accordance with subparts AAAA through IIII of this part and §§ 51.123(ee) and 52.35 of this chapter or approved and administered by the Administrator in accordance with under subparts AAAA through IIII and § 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), or (dd) of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides.

*CAIR NO<sub>x</sub> Ozone Season unit* means a unit that is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.304 and, except for purposes of § 97.305 and subpart EEEE of this part, a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part.

*CAIR NO<sub>x</sub> source* means a source that is subject to the CAIR NO<sub>x</sub> Annual Trading Program.

*CAIR permit* means the legally binding and federally enforceable written document, or portion of such document, issued by the permitting authority under subpart CCCC of this part, including any permit revisions, specifying the CAIR NO<sub>x</sub> Ozone Season Trading Program requirements applicable to a CAIR NO<sub>x</sub> Ozone Season source, to each CAIR NO<sub>x</sub> Ozone Season unit at the source, and to the owners and operators and the CAIR designated representative of the source and each such unit.

*CAIR SO<sub>2</sub> source* means a source that is subject to the CAIR SO<sub>2</sub> Trading Program.

*CAIR SO<sub>2</sub> Trading Program* means a multi-state sulfur dioxide air pollution control and emission reduction program established by the Administrator in accordance with subparts AAA through IIII of this part and §§ 51.124(r) and 52.36 of this chapter or approved and administered by the Administrator in accordance with subparts AAA through IIII of part 96 of this chapter and § 51.124(o)(1) or (2) of this chapter, as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

*Certifying official* means:

(1) For a corporation, a president, secretary, treasurer, or vice-president or the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation;

(2) For a partnership or sole proprietorship, a general partner or the proprietor respectively; or

(3) For a local government entity or State, Federal, or other public agency, a principal executive officer or ranking elected official.

*Clean Air Act* or *CAA* means the Clean Air Act, 42 U.S.C. 7401, *et seq.*

*Coal* means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite.

*Coal-derived fuel* means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

*Coal-fired* means:

(1) Except for purposes of subpart EEEE of this part, combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year; or

(2) For purposes of subpart EEEE of this part, combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during a specified year.

*Cogeneration unit* means 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.

*Combustion turbine* means:

(1) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(2) If the enclosed device under paragraph (1) of this definition is combined cycle, any associated duct

burner, heat recovery steam generator, and steam turbine.

*Commence commercial operation* means, with regard to a unit:

(1) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in § 97.305 and § 97.384(h).

(i) For a unit that is a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (1), (2), or (3) of this definition as appropriate.

(2) Notwithstanding paragraph (1) of this definition and except as provided in § 97.305, for a unit that is not a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in paragraph (1) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304.

(i) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of commercial operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with

a separate date for commencement of commercial operation as defined in paragraph (1), (2), or (3) of this definition as appropriate.

(3) Notwithstanding paragraphs (1) and (2) of this definition, for a unit not serving a generator producing electricity for sale, the unit's date of commencement of operation shall also be the unit's date of commencement of commercial operation.

*Commence operation* means:

(1) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber, except as provided in § 97.384(h).

(i) For a unit that undergoes a physical change (other than replacement of the unit by a unit at the same source) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit that is replaced by a unit at the same source (e.g., repowered) after the date the unit commences operation as defined in paragraph (1) of this definition, such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1) or (2) of this definition as appropriate, except as provided in § 97.384(h).

(2) Notwithstanding paragraph (1) of this definition and solely for purposes of subpart HHHH of this part, for a unit that is not a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304(d) on the later of November 15, 1990 or the date the unit commences operation as defined in paragraph (1) of this definition and subsequently becomes such a CAIR NO<sub>x</sub> Ozone Season unit, the unit's date for commencement of operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304(d).

(i) For a unit with a date for commencement of operation as defined in paragraph (2) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

(ii) For a unit with a date for commencement of operation as defined in paragraph (2) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced

unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (1) or (2) of this definition as appropriate.

*Common stack* means a single flue through which emissions from 2 or more units are exhausted.

*Compliance account* means a CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account, established by the Administrator for a CAIR NO<sub>x</sub> Ozone Season source under subpart FFFF or IIII of this part, in which any CAIR NO<sub>x</sub> Ozone Season allowance allocations for the CAIR NO<sub>x</sub> Ozone Season units at the source are initially recorded and in which are held any CAIR NO<sub>x</sub> Ozone Season allowances available for use for a control period in order to meet the source's CAIR NO<sub>x</sub> Ozone Season emissions limitation in accordance with § 97.354.

*Continuous emission monitoring system* or *CEMS* means the equipment required under subpart HHHH of this part to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of nitrogen oxides emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with part 75 of this chapter. The following systems are the principal types of continuous emission monitoring systems required under subpart HHHH of this part:

(1) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in standard cubic feet per hour (scfh);

(2) A nitrogen oxides concentration monitoring system, consisting of a NO<sub>x</sub> pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of NO<sub>x</sub> emissions, in parts per million (ppm);

(3) A nitrogen oxides emission rate (or NO<sub>x</sub>-diluent) monitoring system, consisting of a NO<sub>x</sub> pollutant concentration monitor, a diluent gas (CO<sub>2</sub> or O<sub>2</sub>) monitor, and an automated data acquisition and handling system and providing a permanent, continuous record of NO<sub>x</sub> concentration, in parts per million (ppm), diluent gas concentration, in percent CO<sub>2</sub> or O<sub>2</sub>, and NO<sub>x</sub> emission rate, in pounds per million British thermal units (lb/mmBtu);



(4) A moisture monitoring system, as defined in § 75.11(b)(2) of this chapter and providing a permanent, continuous record of the stack gas moisture content, in percent H<sub>2</sub>O;

(5) A carbon dioxide monitoring system, consisting of a CO<sub>2</sub> pollutant concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO<sub>2</sub> concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO<sub>2</sub> emissions, in percent CO<sub>2</sub>; and

(6) An oxygen monitoring system, consisting of an O<sub>2</sub> concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O<sub>2</sub>, in percent O<sub>2</sub>.

*Control period or ozone season* means the period beginning May 1 of a calendar year, except as provided in § 97.306(c)(2) and ending on September 30 of the same year, inclusive.

*Emissions* means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Administrator by the CAIR designated representative and as determined by the Administrator in accordance with subpart HHHH of this part.

*Excess emissions* means any ton of nitrogen oxides emitted by the CAIR NO<sub>x</sub> Ozone Season units at a CAIR NO<sub>x</sub> Ozone Season source during a control period that exceeds the CAIR NO<sub>x</sub> Ozone Season emissions limitation for the source.

*Fossil fuel* means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

*Fossil-fuel-fired* means, with regard to a unit, combusting any amount of fossil fuel in any calendar year.

*Fuel oil* means any petroleum-based fuel (including diesel fuel or petroleum derivatives such as oil tar) and any recycled or blended petroleum products or petroleum by-products used as a fuel whether in a liquid, solid, or gaseous state.

*General account* means a CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account, established under subpart FFFF of this part, that is not a compliance account.

*Generator* means a device that produces electricity.

*Gross electrical output* means, with regard to a cogeneration unit, electricity made available for use, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel

combusted at the unit and any on-site emission controls).

*Heat input* means, with regard to a specified period of time, the product (in mmBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Administrator by the CAIR designated representative and determined by the Administrator in accordance with subpart HHHH of this part and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

*Heat input rate* means the amount of heat input (in mmBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in mmBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

*Hg Budget Trading Program* means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance subpart HHHH of part 60 of this chapter and § 60.24(h)(6), or established by the Administrator under section 111 of the Clean Air Act, as a means of reducing national Hg emissions.

*Life-of-the-unit, firm power contractual arrangement* means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:

(1) For the life of the unit;

(2) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(3) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

*Maximum design heat input* means the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

*Monitoring system* means any monitoring system that meets the

requirements of subpart HHHH of this part, including a continuous emissions monitoring system, an alternative monitoring system, or an excepted monitoring system under part 75 of this chapter.

*Most stringent State or Federal NO<sub>x</sub> emissions limitation* means, with regard to a unit, the lowest NO<sub>x</sub> emissions limitation (in terms of lb/mmBtu) that is applicable to the unit under State or Federal law, regardless of the averaging period to which the emissions limitation applies.

*Nameplate capacity* means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings) as of such installation as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as of such completion as specified by the person conducting the physical change.

*Oil-fired* means, for purposes of subpart EEEE of this part, combusting fuel oil for more than 15.0 percent of the annual heat input in a specified year and not qualifying as coal-fired.

*Operator* means any person who operates, controls, or supervises a CAIR NO<sub>x</sub> Ozone Season unit or a CAIR NO<sub>x</sub> Ozone Season source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

*Owner* means any of the following persons:

(1) With regard to a CAIR NO<sub>x</sub> Ozone Season source or a CAIR NO<sub>x</sub> Ozone Season unit at a source, respectively:

(i) Any holder of any portion of the legal or equitable title in a CAIR NO<sub>x</sub> Ozone Season unit at the source or the CAIR NO<sub>x</sub> Ozone Season unit;

(ii) Any holder of a leasehold interest in a CAIR NO<sub>x</sub> Ozone Season unit at the source or the CAIR NO<sub>x</sub> Ozone Season unit; or

(iii) Any purchaser of power from a CAIR NO<sub>x</sub> Ozone Season unit at the source or the CAIR NO<sub>x</sub> Ozone Season unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person

who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such CAIR NO<sub>x</sub> Ozone Season unit; or

(2) With regard to any general account, any person who has an ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances held in the general account and who is subject to the binding agreement for the CAIR authorized account representative to represent the person's ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances.

*Permitting authority* means the State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to issue or revise permits to meet the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program in accordance with subpart CCCC of this part or, if no such agency has been so authorized, the Administrator.

*Potential electrical output capacity* means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.

*Receive or receipt of* means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.

*Recordation, record, or recorded* means, with regard to CAIR NO<sub>x</sub> Ozone Season allowances, the movement of CAIR NO<sub>x</sub> Ozone Season allowances by the Administrator into or between CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts, for purposes of allocation, transfer, or deduction.

*Reference method* means any direct test method of sampling and analyzing for an air pollutant as specified in ( 75.22 of this chapter.

*Replacement, replace, or replaced* means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

*Repowered* means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

(1) Atmospheric or pressurized fluidized bed combustion;

(2) Integrated gasification combined cycle;

(3) Magnetohydrodynamics;

(4) Direct and indirect coal-fired turbines;

(5) Integrated gasification fuel cells; or

(6) As determined by the

Administrator in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (1) through (5) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

*Sequential use of energy* means:

(1) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(2) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

*Serial number* means, for a CAIR NO<sub>x</sub> Ozone Season allowance, the unique identification number assigned to each CAIR NO<sub>x</sub> Ozone Season allowance by the Administrator.

*Solid waste incineration unit* means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129(g)(1) of the Clean Air Act.

*Source* means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons. For purposes of section 502(c) of the Clean Air Act, a "source," including a "source" with multiple units, shall be considered a single "facility."

*State* means one of the States or the District of Columbia that is subject to the CAIR NO<sub>x</sub> Ozone Season Trading Program pursuant to ( 52.35 of this chapter.

*Submit or serve* means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

(1) In person;

(2) By United States Postal Service; or

(3) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

*Title V operating permit* means a permit issued under title V of the Clean

Air Act and part 70 or part 71 of this chapter.

*Title V operating permit regulations* means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the Clean Air Act and part 70 or 71 of this chapter.

*Ton* means 2,000 pounds. For the purpose of determining compliance with the CAIR NO<sub>x</sub> Ozone Season emissions limitation, total tons of nitrogen oxides emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with subpart HHHH of this part, but with any remaining fraction of a ton equal to or greater than 0.50 tons deemed to equal one ton and any remaining fraction of a ton less than 0.50 tons deemed to equal zero tons.

*Topping-cycle cogeneration unit* means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

*Total energy input* means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself.

*Total energy output* means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

*Unit* means a stationary, fossil-fuel-fired boiler or combustion turbine or other stationary, fossil-fuel-fired combustion device.

*Unit operating day* means a calendar day in which a unit combusts any fuel.

*Unit operating hour* or *hour of unit operation* means an hour in which a unit combusts any fuel.

*Useful power* means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

*Useful thermal energy* means, with regard to a cogeneration unit, thermal energy that is:

(1) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;

(2) Used in a heating application (e.g., space heating or domestic hot water heating); or

(3) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).

*Utility power distribution system* means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

#### **§ 97.303 Measurements, abbreviations, and acronyms.**

Measurements, abbreviations, and acronyms used in this subpart and subparts BBBB through IIII are defined as follows:

Btu—British thermal unit.

CO<sub>2</sub>—carbon dioxide.

H<sub>2</sub>O—water.

Hg—mercury.

hr—hour.

kW—kilowatt electrical.

kWh—kilowatt hour.

lb—pound.

mmBtu—million Btu.

MWe—megawatt electrical.

MWh—megawatt hour.

NO<sub>x</sub>—nitrogen oxides.

O<sub>2</sub>—oxygen.

ppm—parts per million.

scfh—standard cubic feet per hour.

SO<sub>2</sub>—sulfur dioxide.

yr—year.

#### **§ 97.304 Applicability.**

(a) Except as provided in paragraph (b) of this section:

(1) The following units in a State shall be CAIR NO<sub>x</sub> Ozone Season units, and any source that includes one or more such units shall be a CAIR NO<sub>x</sub> Ozone Season source, subject to the requirements of this subpart and subparts BBBB through HHHH of this part: any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time, since the later of 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.

(2) If a stationary boiler or stationary combustion turbine that, under paragraph (a)(1) of this section, is not a CAIR NO<sub>x</sub> Ozone Season unit begins to combust fossil fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR NO<sub>x</sub> Ozone Season unit as provided in paragraph (a)(1) of this section on the first date on which it both combusts fossil fuel and serves such generator.

(b) The units in a State that meet the requirements set forth in paragraph (b)(1)(i), (b)(2)(i), or (b)(2)(ii) of this

section shall not be CAIR NO<sub>x</sub> Ozone Season units:

(1)(i) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section:

(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and

(B) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit(s) potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

(ii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraphs (b)(1)(i) of this section for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a CAIR NO<sub>x</sub> Ozone Season unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (b)(1)(i)(B) of this section.

(2)(i) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section commencing operation before January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for 1985–1987 exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(ii) Any unit that is a CAIR NO<sub>x</sub> Ozone Season unit under paragraph (a)(1) or (2) of this section commencing operation on or after January 1, 1985:

(A) Qualifying as a solid waste incineration unit; and

(B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis).

(iii) If a unit qualifies as a solid waste incineration unit and meets the requirements of paragraph (b)(2)(i) or (ii) of this section for at least 3 consecutive calendar years, but subsequently no longer meets all such requirements, the

unit shall become a CAIR NO<sub>x</sub> Ozone Season unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a solid waste incineration unit or January 1 after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20 percent or more.

(c) A certifying official of an owner or operator of any unit may petition the Administrator at any time for a determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR NO<sub>x</sub> Ozone Season Trading Program to the unit.

(1) *Petition content.* The petition shall be in writing and include the identification of the unit and the relevant facts about the unit. The petition and any other documents provided to the Administrator in connection with the petition shall include the following certification statement, signed by the certifying official: "I am authorized to make this submission on behalf of the owners and operators of the unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) *Submission.* The petition and any other documents provided in connection with the petition shall be submitted to the Director of the Clean Air Markets Division (or its successor), U.S. Environmental Protection Agency, who will act on the petition as the Administrator's duly authorized representative.

(3) *Response.* The Administrator will issue a written response to the petition and may request supplemental information relevant to such petition. The Administrator's determination concerning the applicability, under paragraphs (a) and (b) of this section, of the CAIR NO<sub>x</sub> Ozone Season Trading Program to the unit shall be binding on the permitting authority unless the petition or other information or documents provided in connection with

the petition are found to have contained significant, relevant errors or omissions.

(d) Notwithstanding paragraphs (a) and (b) of this section, if a State submits, and the Administrator approves, a State implementation plan revision in accordance with § 51.123(ee)(1) of this chapter providing for the inclusion in the CAIR NO<sub>x</sub> Ozone Season Trading Program of all units that are not otherwise CAIR NO<sub>x</sub> Ozone Season units under paragraphs (a) and (b) of this section and that are NO<sub>x</sub> Budget units covered by the State's emissions trading program approved under § 51.121(p) of this chapter, such units shall be CAIR NO<sub>x</sub> Ozone Season units as of the first date that they are NO<sub>x</sub> Budget units under the NO<sub>x</sub> Budget Trading Program under § 51.121(p) of this chapter.

#### **§ 97.305 Retired unit exemption.**

(a)(1) Any CAIR NO<sub>x</sub> Ozone Season unit that is permanently retired and is not a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part shall be exempt from the CAIR NO<sub>x</sub> Ozone Season Trading Program, except for the provisions of this section, §§ 97.302, 97.303, 97.304, 97.306(c)(4) through (7), 97.307, 97.308, and subparts BBBB and EEEE through GGGG of this part.

(2) The exemption under paragraph (a)(1) of this section shall become effective the day on which the CAIR NO<sub>x</sub> Ozone Season unit is permanently retired. Within 30 days of the unit's permanent retirement, the CAIR designated representative shall submit a statement to the permitting authority otherwise responsible for administering any CAIR permit for the unit and shall submit a copy of the statement to the Administrator. The statement shall state, in a format prescribed by the permitting authority, that the unit was permanently retired on a specific date and will comply with the requirements of paragraph (b) of this section.

(3) After receipt of the statement under paragraph (a)(2) of this section, the permitting authority will amend any permit under subpart CCCC of this part covering the source at which the unit is located to add the provisions and requirements of the exemption under paragraphs (a)(1) and (b) of this section.

(b) *Special provisions.* (1) A unit exempt under paragraph (a) of this section shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.

(2) The Administrator or the permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances under subpart EEEE of this part to a unit exempt under paragraph (a) of this section.

(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under paragraph (a) of this section shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.

(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under paragraph (a) of this section shall comply with the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(5) A unit exempt under paragraph (a) of this section and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under § 97.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.

(6) On the earlier of the following dates, a unit exempt under paragraph (a) of this section shall lose its exemption:

(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under paragraph (b)(5) of this section;

(ii) The date on which the CAIR designated representative is required under paragraph (b)(5) of this section to submit a CAIR permit application for the unit; or

(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.

(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under subpart HHHH of this part, a unit that loses its exemption under paragraph (a) of this section shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

#### **§ 97.306 Standard requirements.**

(a) *Permit requirements.* (1) The CAIR designated representative of each CAIR NO<sub>x</sub> Ozone Season source required to

have a title V operating permit and each CAIR NO<sub>x</sub> Ozone Season unit required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under § 97.322 in accordance with the deadlines specified in § 97.321; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO<sub>x</sub> Ozone Season source required to have a title V operating permit and each CAIR NO<sub>x</sub> Ozone Season unit required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CCCC of this part for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart IIII of this part, the owners and operators of a CAIR NO<sub>x</sub> Ozone Season source that is not otherwise required to have a title V operating permit and each CAIR NO<sub>x</sub> Ozone Season unit that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CCCC of this part for such CAIR NO<sub>x</sub> Ozone Season source and such CAIR NO<sub>x</sub> Ozone Season unit.

(b) *Monitoring, reporting, and recordkeeping requirements.* (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of this part.

(2) The emissions measurements recorded and reported in accordance with subpart HHHH of this part shall be used to determine compliance by each CAIR NO<sub>x</sub> Ozone Season source with the CAIR NO<sub>x</sub> Ozone Season emissions limitation under paragraph (c) of this section.

(c) *Nitrogen oxides ozone season emission requirements.* (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> Ozone Season allowances available for compliance deductions for the control period under § 97.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period

from all CAIR NO<sub>x</sub> Ozone Season units at the source, as determined in accordance with subpart HHHH of this part.

(2) A CAIR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under § 97.370(b)(1), (2), (3), or (7) and for each control period thereafter.

(3) A CAIR NO<sub>x</sub> Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> Ozone Season allowance was allocated.

(4) CAIR NO<sub>x</sub> Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts in accordance with subparts EEEE, FFFF, GGGG, and IIII of this part.

(5) A CAIR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> Ozone Season Trading Program. No provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under § 97.305 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(6) A CAIR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of this part, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Ozone Season allowance to or from a CAIR NO<sub>x</sub> Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) *Excess emissions requirements.* If a CAIR NO<sub>x</sub> Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall surrender the CAIR NO<sub>x</sub> Ozone Season allowances required for deduction under § 97.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of

this subpart, the Clean Air Act, and applicable State law.

(e) *Recordkeeping and reporting requirements.* (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under § 97.313 for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under § 97.313 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subpart HHHH of this part, provided that to the extent that subpart HHHH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO<sub>x</sub> Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(2) The CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Ozone Season Trading Program, including those under subpart HHHH of this part.

(f) *Liability.* (1) Each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit shall meet the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(2) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season source or the CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source

and of the CAIR NO<sub>x</sub> Ozone Season units at the source.

(3) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season unit or the CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

(g) *Effect on other authorities.* No provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program, a CAIR permit application, a CAIR permit, or an exemption under § 97.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> Ozone Season source or CAIR NO<sub>x</sub> Ozone Season unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

#### § 97.307 Computation of time.

(a) Unless otherwise stated, any time period scheduled, under the CAIR NO<sub>x</sub> Ozone Season Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled, under the CAIR NO<sub>x</sub> Ozone Season Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period, under the CAIR NO<sub>x</sub> Ozone Season Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

#### § 97.308 Appeal procedures.

The appeal procedures for decisions of the Administrator under the CAIR NO<sub>x</sub> Ozone Season Trading Program are set forth in part 78 of this chapter.

#### Appendix A to Subpart AAAA of Part 97—States With Approved State Implementation Plan Revisions Concerning Applicability

The following States have State Implementation Plan revisions under § 51.123(ee)(1) of this chapter approved by the Administrator and providing for expansion of the applicability provisions to include all non-EGUs subject to the respective State's emission trading program approved under § 51.121(p) of this chapter:

[Reserved]

### **Subpart BBBB—CAIR Designated Representative for CAIR NO<sub>x</sub> Ozone Season Sources**

#### **§ 97.310 Authorization and responsibilities of CAIR designated representative.**

(a) Except as provided under § 97.311, each CAIR NO<sub>x</sub> Ozone Season source, including all CAIR NO<sub>x</sub> Ozone Season units at the source, shall have one and only one CAIR designated representative, with regard to all matters under the CAIR NO<sub>x</sub> Ozone Season Trading Program concerning the source or any CAIR NO<sub>x</sub> Ozone Season unit at the source.

(b) The CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season source shall be selected by an agreement binding on the owners and operators of the source and all CAIR NO<sub>x</sub> Ozone Season units at the source and shall act in accordance with the certification statement in § 97.313(a)(4)(iv).

(c) Upon receipt by the Administrator of a complete certificate of representation under § 97.313, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR NO<sub>x</sub> Ozone Season source represented and each CAIR NO<sub>x</sub> Ozone Season unit at the source in all matters pertaining to the CAIR NO<sub>x</sub> Ozone Season Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the permitting authority, the Administrator, or a court regarding the source or unit.

(d) No CAIR permit will be issued, no emissions data reports will be accepted, and no CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account will be established for a CAIR NO<sub>x</sub> Ozone Season unit at a source, until the Administrator has received a complete certificate of representation under § 97.313 for a CAIR designated representative of the source and the CAIR NO<sub>x</sub> Ozone Season units at the source.

(e)(1) Each submission under the CAIR NO<sub>x</sub> Ozone Season Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR NO<sub>x</sub> Ozone Season source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on

behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) The permitting authority and the Administrator will accept or act on a submission made on behalf of owner or operators of a CAIR NO<sub>x</sub> Ozone Season source or a CAIR NO<sub>x</sub> Ozone Season unit only if the submission has been made, signed, and certified in accordance with paragraph (e)(1) of this section.

#### **§ 97.311 Alternate CAIR designated representative.**

(a) A certificate of representation under § 97.313 may designate one and only one alternate CAIR designated representative, who may act on behalf of the CAIR designated representative. The agreement by which the alternate CAIR designated representative is selected shall include a procedure for authorizing the alternate CAIR designated representative to act in lieu of the CAIR designated representative.

(b) Upon receipt by the Administrator of a complete certificate of representation under § 97.313, any representation, action, inaction, or submission by the alternate CAIR designated representative shall be deemed to be a representation, action, inaction, or submission by the CAIR designated representative.

(c) Except in this section and §§ 97.302, 97.310(a) and (d), 97.312, 97.313, 97.315, 97.351, and 97.382, whenever the term "CAIR designated representative" is used in subparts AAAA through IIII of this part, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

#### **§ 97.312 Changing CAIR designated representative and alternate CAIR designated representative; changes in owners and operators.**

(a) *Changing CAIR designated representative.* The CAIR designated representative may be changed at any

time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.313. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the new CAIR designated representative and the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source and the CAIR NO<sub>x</sub> Ozone Season units at the source.

(b) *Changing alternate CAIR designated representative.* The alternate CAIR designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under § 97.313. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR designated representative before the time and date when the Administrator receives the superseding certificate of representation shall be binding on the new alternate CAIR designated representative and the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source and the CAIR NO<sub>x</sub> Ozone Season units at the source.

(c) *Changes in owners and operators.* (1) In the event an owner or operator of a CAIR NO<sub>x</sub> Ozone Season source or a CAIR NO<sub>x</sub> Ozone Season unit is not included in the list of owners and operators in the certificate of representation under § 97.313, such owner or operator shall be deemed to be subject to and bound by the certificate of representation, the representations, actions, inactions, and submissions of the CAIR designated representative and any alternate CAIR designated representative of the source or unit, and the decisions and orders of the permitting authority, the Administrator, or a court, as if the owner or operator were included in such list.

(2) Within 30 days following any change in the owners and operators of a CAIR NO<sub>x</sub> Ozone Season source or a CAIR NO<sub>x</sub> Ozone Season unit, including the addition of a new owner or operator, the CAIR designated representative or any alternate CAIR designated representative shall submit a revision to the certificate of representation under § 97.313 amending the list of owners and operators to include the change.

#### **§ 97.313 Certificate of representation.**

(a) A complete certificate of representation for a CAIR designated representative or an alternate CAIR designated representative shall include

the following elements in a format prescribed by the Administrator:

(1) Identification of the CAIR NO<sub>x</sub> Ozone Season source, and each CAIR NO<sub>x</sub> Ozone Season unit at the source, for which the certificate of representation is submitted, including identification and nameplate capacity of each generator served by each such unit.

(2) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR designated representative and any alternate CAIR designated representative.

(3) A list of the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source and of each CAIR NO<sub>x</sub> Ozone Season unit at the source.

(4) The following certification statements by the CAIR designated representative and any alternate CAIR designated representative—

(i) “I certify that I was selected as the CAIR designated representative or alternate CAIR designated representative, as applicable, by an agreement binding on the owners and operators of the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source.”

(ii) “I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR NO<sub>x</sub> Ozone Season Trading Program on behalf of the owners and operators of the source and of each CAIR NO<sub>x</sub> Ozone Season unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions.”

(iii) “I certify that the owners and operators of the source and of each CAIR NO<sub>x</sub> Ozone Season unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.”

(iv) “Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, a CAIR NO<sub>x</sub> Ozone Season unit, or where a utility or industrial customer purchases power from a CAIR NO<sub>x</sub> Ozone Season unit under a life-of-the-unit, firm power contractual arrangement, I certify that: I have given a written notice of my selection as the ‘CAIR designated representative’ or ‘alternate CAIR designated representative’, as applicable, and of the agreement by which I was selected to each owner and operator of the source and of each CAIR NO<sub>x</sub> Ozone Season unit at the source; and CAIR NO<sub>x</sub> Ozone Season allowances and proceeds of transactions involving CAIR NO<sub>x</sub> Ozone Season allowances will be deemed to be held or distributed in proportion to each

holder’s legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of CAIR NO<sub>x</sub> Ozone Season allowances by contract, CAIR NO<sub>x</sub> Ozone Season allowances and proceeds of transactions involving CAIR NO<sub>x</sub> Ozone Season allowances will be deemed to be held or distributed in accordance with the contract.”

(5) The signature of the CAIR designated representative and any alternate CAIR designated representative and the dates signed.

(b) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the certificate of representation shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

#### **§ 97.314 Objections concerning CAIR designated representative.**

(a) Once a complete certificate of representation under § 97.313 has been submitted and received, the permitting authority and the Administrator will rely on the certificate of representation unless and until a superseding complete certificate of representation under § 97.313 is received by the Administrator.

(b) Except as provided in § 97.312(a) or (b), no objection or other communication submitted to the permitting authority or the Administrator concerning the authorization, or any representation, action, inaction, or submission, of the CAIR designated representative shall affect any representation, action, inaction, or submission of the CAIR designated representative or the finality of any decision or order by the permitting authority or the Administrator under the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(c) Neither the permitting authority nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any CAIR designated representative, including private legal disputes concerning the proceeds of CAIR NO<sub>x</sub> Ozone Season allowance transfers.

#### **§ 97.315 Delegation by CAIR designated representative and alternate CAIR designated representative.**

(a) A CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an

electronic submission to the Administrator provided for or required under this part.

(b) An alternate CAIR designated representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under this part.

(c) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (a) or (b) of this section, the CAIR designated representative or alternate CAIR designated representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(1) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR designated representative or alternate CAIR designated representative;

(2) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an “agent”);

(3) For each such natural person, a list of the type or types of electronic submissions under paragraph (a) or (b) of this section for which authority is delegated to him or her; and

(4) The following certification statements by such CAIR designated representative or alternate CAIR designated representative:

(i) “I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR designated representative or alternate CAIR designated representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 97.315(d) shall be deemed to be an electronic submission by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under 40 CFR 97.315(d), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 97.315 is terminated.”

(d) A notice of delegation submitted under paragraph (c) of this section shall be effective, with regard to the CAIR designated representative or alternate CAIR designated representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a



superseding notice of delegation submitted by such CAIR designated representative or alternate CAIR designated representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(e) Any electronic submission covered by the certification in paragraph (c)(4)(i) of this section and made in accordance with a notice of delegation effective under paragraph (d) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

#### Subpart CCCC—Permits

##### § 97.320 General CAIR NO<sub>x</sub> Ozone Season Trading Program permit requirements.

(a) For each CAIR NO<sub>x</sub> Ozone Season source required to have a title V operating permit or required, under subpart IIII of this part, to have a title V operating permit or other federally enforceable permit, such permit shall include a CAIR permit administered by the permitting authority for the title V operating permit or the federally enforceable permit as applicable. The CAIR portion of the title V permit or other federally enforceable permit as applicable shall be administered in accordance with the permitting authority's title V operating permits regulations promulgated under part 70 or 71 of this chapter or the permitting authority's regulations for other federally enforceable permits as applicable, except as provided otherwise by § 97.305, this subpart, and subpart IIII of this part.

(b) Each CAIR permit shall contain, with regard to the CAIR NO<sub>x</sub> Ozone Season source and the CAIR NO<sub>x</sub> Ozone Season units at the source covered by the CAIR permit, all applicable CAIR NO<sub>x</sub> Ozone Season Trading Program,

CAIR NO<sub>x</sub> Annual Trading Program, and CAIR SO<sub>2</sub> Trading Program requirements and shall be a complete and separable portion of the title V operating permit or other federally enforceable permit under paragraph (a) of this section.

##### § 97.321 Submission of CAIR permit applications.

(a) *Duty to apply.* The CAIR designated representative of any CAIR NO<sub>x</sub> Ozone Season source required to have a title V operating permit shall submit to the permitting authority a complete CAIR permit application under § 97.322 for the source covering each CAIR NO<sub>x</sub> Ozone Season unit at the source at least 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the CAIR NO<sub>x</sub> Ozone Season unit commences commercial operation, except as provided in § 97.383(a).

(b) *Duty to reapply.* For a CAIR NO<sub>x</sub> Ozone Season source required to have a title V operating permit, the CAIR designated representative shall submit a complete CAIR permit application under § 97.322 for the source covering each CAIR NO<sub>x</sub> Ozone Season unit at the source to renew the CAIR permit in accordance with the permitting authority's title V operating permits regulations addressing permit renewal, except as provided in § 97.383(b).

##### § 97.322 Information requirements for CAIR permit applications.

A complete CAIR permit application shall include the following elements concerning the CAIR NO<sub>x</sub> Ozone Season source for which the application is submitted, in a format prescribed by the permitting authority:

- (a) Identification of the CAIR NO<sub>x</sub> Ozone Season source;
- (b) Identification of each CAIR NO<sub>x</sub> Ozone Season unit at the CAIR NO<sub>x</sub> Ozone Season source; and
- (c) The standard requirements under § 97.306.

##### § 97.323 CAIR permit contents and term.

(a) Each CAIR permit will contain, in a format prescribed by the permitting authority, all elements required for a complete CAIR permit application under § 97.322.

(b) Each CAIR permit is deemed to incorporate automatically the definitions of terms under § 97.302 and, upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of this part, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Ozone Season allowance to or from the compliance account of the CAIR NO<sub>x</sub> Ozone Season source covered by the permit.

(c) The term of the CAIR permit will be set by the permitting authority, as necessary to facilitate coordination of the renewal of the CAIR permit with issuance, revision, or renewal of the CAIR NO<sub>x</sub> Ozone Season source's title V operating permit or other federally enforceable permit as applicable.

##### § 97.324 CAIR permit revisions.

Except as provided in § 97.323(b), the permitting authority will revise the CAIR permit, as necessary, in accordance with the permitting authority's title V operating permits regulations or the permitting authority's regulations for other federally enforceable permits as applicable addressing permit revisions.

#### Subpart DDDD—[Reserved]

##### Subpart EEEE—CAIR NO<sub>x</sub> Ozone Season Allowance Allocations

##### § 97.340 State trading budgets.

(a) Except as provided in paragraph (b) of this section, the State trading budgets for annual allocations of CAIR NO<sub>x</sub> Ozone Season allowances for the control periods in 2009 through 2014 and in 2015 and thereafter are respectively as follows:

State	State trading budget for 2009–2014 (tons)	State trading budget for 2015 and thereafter (tons)
Alabama .....	32,182	26,818
Arkansas .....	11,515	9,597
Connecticut .....	2,559	2,559
Delaware .....	2,226	1,855
District of Columbia .....	112	94
Florida .....	47,912	39,926
Illinois .....	30,701	28,981
Indiana .....	45,952	39,273
Iowa .....	14,263	11,886
Kentucky .....	36,045	30,587
Louisiana .....	17,085	14,238
Maryland .....	12,834	10,695

State	State trading budget for 2009–2014 (tons)	State trading budget for 2015 and thereafter (tons)
Massachusetts .....	7,551	6,293
Michigan .....	28,971	24,142
Mississippi .....	8,714	7,262
Missouri .....	26,678	22,231
New Jersey .....	6,654	5,545
New York .....	20,632	17,193
North Carolina .....	28,392	23,660
Ohio .....	45,664	39,945
Pennsylvania .....	42,171	35,143
South Carolina .....	15,249	12,707
Tennessee .....	22,842	19,035
Virginia .....	15,994	13,328
West Virginia .....	26,859	26,525
Wisconsin .....	17,987	14,989

(b) Upon approval by the Administrator of a State's State implementation plan revision under § 51.123(ee)(1) of this chapter providing for the inclusion in the CAIR NO<sub>x</sub> Ozone Season Trading Program of all units that are not otherwise CAIR NO<sub>x</sub> Ozone Season units under § 97.304(a) and (b) and that are NO<sub>x</sub> Budget units covered by the State's emissions trading program approved under § 51.121(p), the amount in the State trading budget for a control period in a calendar year will be the sum of the amount set forth for the State and for the year in paragraph (a) of this section and the amount of additional CAIR NO<sub>x</sub> Ozone Season allowance allocations issued under § 51.123(ee)(1)(ii)(A) of this chapter for the year.

**§ 97.341 Timing requirements for CAIR NO<sub>x</sub> Ozone Season allowance allocations.**

(a) The Administrator will determine by order the CAIR NO<sub>x</sub> Ozone Season allowance allocations, in accordance with § 97.342(a) and (b), for the control periods in 2009, 2010, 2011, 2012, 2013, and 2014.

(b) By July 31, 2011 and July 31 of each year thereafter, the Administrator will determine by order the CAIR NO<sub>x</sub> Ozone Season allowance allocations, in accordance with § 97.342(a) and (b), for the control period in the fourth year after the year of the applicable deadline for determination under this paragraph.

(c) By April 30, 2009 and April 30 of each year thereafter, the Administrator will determine by order the CAIR NO<sub>x</sub> Ozone Season allowance allocations, in accordance with § 97.342(a), (c), and (d), for the control period in the year of the applicable deadline for determination under this paragraph.

(d) The Administrator will make available to the public each determination of CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (a),

(b), or (c) of this section and will provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with § 97.342. Based on any such objections, the Administrator will adjust each determination to the extent necessary to ensure that it is in accordance with § 97.342.

**§ 97.342 CAIR NO<sub>x</sub> Ozone Season allowance allocations.**

(a)(1) The baseline heat input (in mmBtu) used with respect to CAIR NO<sub>x</sub> Ozone Season allowance allocations under paragraph (b) of this section for each CAIR NO<sub>x</sub> Ozone Season unit will be:

(i) For units commencing operation before January 1, 2001 the average of the 3 highest amounts of the unit's adjusted control period heat input for 2000 through 2004, with the adjusted control period heat input for each year calculated as follows:

(A) If the unit is coal-fired during the year, the unit's control period heat input for such year is multiplied by 100 percent;

(B) If the unit is oil-fired during the year, the unit's control period heat input for such year is multiplied by 60 percent; and

(C) If the unit is not subject to paragraph (a)(1)(i)(A) or (B) of this section, the unit's control period heat input for such year is multiplied by 40 percent.

(ii) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of 5 or more consecutive calendar years, the average of the 3 highest amounts of the unit's total converted control period heat input over the first such 5 years.

(2)(i) A unit's control period heat input, and a unit's status as coal-fired or

oil-fired, for a calendar year under paragraph (a)(1)(i) of this section, and a unit's total tons of NO<sub>x</sub> emissions during a control period in a calendar year under paragraph (c)(3) of this section, will be determined in accordance with part 75 of this chapter, to the extent the unit was otherwise subject to the requirements of part 75 of this chapter for the year, or will be based on the best available data reported to the Administrator for the unit (in a format prescribed by the Administrator), to the extent the unit was not otherwise subject to the requirements of part 75 of this chapter for the year.

(ii) A unit's converted control period heat input for a calendar year specified under paragraph (a)(1)(ii) of this section equals:

(A) Except as provided in paragraph (a)(2)(ii)(B) or (C) of this section, the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 Btu/kWh, if the unit is coal-fired for the year, or 6,675 Btu/kWh, if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/mmBtu, provided that if a generator is served by 2 or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year;

(B) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and by 1,000,000 Btu/mmBtu; or

(C) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial,

heating, or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.

(iii) Gross electrical output and total heat energy under paragraph (a)(2)(ii) of this section will be determined based on the best available data reported to the Administrator for the unit (in a format prescribed by the Administrator).

(3) The Administrator will determine what data are the best available data under paragraph (a)(2) of this section 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.

(b)(1) For each control period in 2009 and thereafter, the Administrator will allocate to all CAIR NO<sub>x</sub> Ozone Season units in a State that have a baseline heat input (as determined under paragraph (a) of this section) a total amount of CAIR NO<sub>x</sub> Ozone Season allowances equal to 95 percent for a control period during 2009 through 2014, and 97 percent for a control period during 2015 and thereafter, of the tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.340 (except as provided in paragraphs (d) and (e) of this section).

(2) The Administrator will allocate CAIR NO<sub>x</sub> Ozone Season allowances to each CAIR NO<sub>x</sub> Ozone Season unit under paragraph (b)(1) of this section in an amount determined by multiplying the total amount of CAIR NO<sub>x</sub> Ozone Season allowances allocated under paragraph (b)(1) of this section by the ratio of the baseline heat input of such CAIR NO<sub>x</sub> Ozone Season unit to the total amount of baseline heat input of all such CAIR NO<sub>x</sub> Ozone Season units in the State and rounding to the nearest whole allowance as appropriate.

(c) For each control period in 2009 and thereafter, the Administrator will allocate CAIR NO<sub>x</sub> Ozone Season allowances to CAIR NO<sub>x</sub> Ozone Season units in a State that are not allocated CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (b) of this section because the units do not yet have a baseline heat input under paragraph (a) of this section or because the units have a baseline heat input but all CAIR NO<sub>x</sub> Ozone Season allowances available under paragraph (b) of this section for

the control period are already allocated, in accordance with the following procedures:

(1) The Administrator will establish a separate new unit set-aside for each control period. Each new unit set-aside will be allocated CAIR NO<sub>x</sub> Ozone Season allowances equal to 5 percent for a control period in 2009 through 2014, and 3 percent for a control period in 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.340.

(2) The CAIR designated representative of such a CAIR NO<sub>x</sub> Ozone Season unit may submit to the Administrator a request, in a format specified by the Administrator, to be allocated CAIR NO<sub>x</sub> Ozone Season allowances, starting with the later of the control period in 2009 or the first control period after the control period in which the CAIR NO<sub>x</sub> Ozone Season unit commences commercial operation and until the first control period for which the unit is allocated CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (b) of this section. A separate CAIR NO<sub>x</sub> Ozone Season allowance allocation request for each control period for which CAIR NO<sub>x</sub> Ozone Season allowances are sought must be submitted on or before February 1 before such control period and after the date on which the CAIR NO<sub>x</sub> Ozone Season unit commences commercial operation.

(3) In a CAIR NO<sub>x</sub> Ozone Season allowance allocation request under paragraph (c)(2) of this section, the CAIR designated representative may request for a control period CAIR NO<sub>x</sub> Ozone Season allowances in an amount not exceeding the CAIR NO<sub>x</sub> Ozone Season unit(s) total tons of NO<sub>x</sub> emissions during the control period immediately before such control period.

(4) The Administrator will review each CAIR NO<sub>x</sub> Ozone Season allowance allocation request under paragraph (c)(2) of this section and will allocate CAIR NO<sub>x</sub> Ozone Season allowances for each control period pursuant to such request as follows:

(i) The Administrator will accept an allowance allocation request only if the request meets, or is adjusted by the Administrator as necessary to meet, the requirements of paragraphs (c)(2) and (3) of this section.

(ii) On or after February 1 before the control period, the Administrator will determine the sum of the CAIR NO<sub>x</sub> Ozone Season allowances requested (as adjusted under paragraph (c)(4)(i) of this section) in all allowance allocation requests accepted under paragraph (c)(4)(i) of this section for the control period.

(iii) If the amount of CAIR NO<sub>x</sub> Ozone Season allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (c)(4)(ii) of this section, then the Administrator will allocate the amount of CAIR NO<sub>x</sub> Ozone Season allowances requested (as adjusted under paragraph (c)(4)(i) of this section) to each CAIR NO<sub>x</sub> Ozone Season unit covered by an allowance allocation request accepted under paragraph (c)(4)(i) of this section.

(iv) If the amount of CAIR NO<sub>x</sub> Ozone Season allowances in the new unit set-aside for the control period is less than the sum under paragraph (c)(4)(ii) of this section, then the Administrator will allocate to each CAIR NO<sub>x</sub> Ozone Season unit covered by an allowance allocation request accepted under paragraph (c)(4)(i) of this section the amount of the CAIR NO<sub>x</sub> Ozone Season allowances requested (as adjusted under paragraph (c)(4)(i) of this section), multiplied by the amount of CAIR NO<sub>x</sub> Ozone Season allowances in the new unit set-aside for the control period, divided by the sum determined under paragraph (c)(4)(ii) of this section, and rounded to the nearest whole allowance as appropriate.

(v) The Administrator will notify each CAIR designated representative that submitted an allowance allocation request of the amount of CAIR NO<sub>x</sub> Ozone Season allowances (if any) allocated for the control period to the CAIR NO<sub>x</sub> Ozone Season unit covered by the request.

(d) If, after completion of the procedures under paragraph (c)(4) of this section for a control period, any unallocated CAIR NO<sub>x</sub> Ozone Season allowances remain in the new unit set-aside under paragraph (c) of this section for a State for the control period, the Administrator will allocate to each CAIR NO<sub>x</sub> Ozone Season unit that was allocated CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (b) of this section in the State an amount of CAIR NO<sub>x</sub> Ozone Season allowances equal to the total amount of such remaining unallocated CAIR NO<sub>x</sub> Ozone Season allowances, multiplied by the unit's allocation under paragraph (b) of this section, divided by 95 percent for a control period during 2009 through 2014, and 97 percent for a control period during 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the applicable State trading budget under § 97.340, and rounded to the nearest whole allowance as appropriate.

(e) If the Administrator determines that CAIR NO<sub>x</sub> Ozone Season allowances were allocated under paragraphs (a) and (b) of this section,

paragraphs (a) and (c) of this section, or paragraph (d) of this section for a control period and that the recipient of the allocation is not actually a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 in such control period, then the Administrator will notify the CAIR designated representative and will act in accordance with the following procedures:

(1) Except as provided in paragraph (e)(2) or (3) of this section, the Administrator will not record such CAIR NO<sub>x</sub> Ozone Season allowances under § 97.353.

(2) If the Administrator already recorded such CAIR NO<sub>x</sub> Ozone Season allowances under § 97.353 and if the Administrator makes such determinations before making deductions for the source that includes such recipient under § 97.354(b) for the control period, then the Administrator will deduct from the account in which such CAIR NO<sub>x</sub> Ozone Season allowances were recorded under § 97.353 an amount of CAIR NO<sub>x</sub> Ozone Season allowances allocated for the same or a prior control period equal to the amount of such already recorded CAIR NO<sub>x</sub> Ozone Season allowances. The CAIR designated representative shall ensure that there are sufficient CAIR NO<sub>x</sub> Ozone Season allowances in such account for completion of the deduction.

(3) If the Administrator already recorded such CAIR NO<sub>x</sub> Ozone Season allowances under § 97.353 and if the Administrator makes such determinations after making deductions for the source that includes such recipient under § 97.354(b) for the control period, then the Administrator will apply paragraph (e)(1) or (2) of this section, as appropriate, to any subsequent control period for which CAIR NO<sub>x</sub> Ozone Season allowances were allocated to such recipient.

(4) The Administrator will transfer the CAIR NO<sub>x</sub> Ozone Season allowances that are not recorded, or that are deducted, in accordance with paragraphs (e)(1), (2), and (3) of this section to a new unit set-aside for the State in which such recipient is located.

#### **§ 97.343 Alternative of allocation of CAIR NO<sub>x</sub> Ozone Season allowances by permitting authority.**

(a) Notwithstanding §§ 97.341, 97.342, and 97.353 if a State submits, and the Administrator approves, a State implementation plan revision in accordance with § 51.123(ee)(2) of this chapter providing for allocation of CAIR NO<sub>x</sub> Ozone Season allowances by the permitting authority, then the permitting authority shall make such

allocations in accordance with such approved State implementation plan revision, the Administrator will not make allocations under §§ 97.341 and 97.342 for the CAIR NO<sub>x</sub> Ozone Season units in the State, and under § 97.353, the Administrator will record allocations made under such approved State implementation plan revision instead of allocations under §§ 97.341 and 97.342.

(b) In implementing paragraph(a) of this section and §§ 97.341, 97.342, and 97.353, the Administrator will ensure that the total amount of CAIR NO<sub>x</sub> Ozone Season allowances allocated, under such provisions and under a State's State implementation plan revision approved in accordance with § 51.123(ee)(2) of this chapter, for a control period for CAIR NO<sub>x</sub> Ozone Season sources in the State or for other entities specified by the permitting authority will not exceed the State's State trading budget for the year of the control period.

#### **Appendix A to Subpart EEEE of Part 97—States With Approved State Implementation Plan Revisions Concerning Allocations**

The following States have State Implementation Plan revisions under § 51.123(ee)(2) of this chapter approved by the Administrator and providing for allocation of CAIR NO<sub>x</sub> Ozone Season allowances by the permitting authority under § 97.344(a):  
[Reserved]

#### **Subpart FFFF—CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System**

##### **§ 97.350 [Reserved]**

##### **§ 97.351 Establishment of accounts.**

(a) *Compliance accounts.* Except as provided in § 97.384(e), upon receipt of a complete certificate of representation under § 97.313, the Administrator will establish a compliance account for the CAIR NO<sub>x</sub> Ozone Season source for which the certificate of representation was submitted, unless the source already has a compliance account.

(b) *General accounts.*—(1) *Application for general account.* (i) Any person may apply to open a general account for the purpose of holding and transferring CAIR NO<sub>x</sub> Ozone Season allowances. An application for a general account may designate one and only one CAIR authorized account representative and one and only one alternate CAIR authorized account representative who may act on behalf of the CAIR authorized account representative. The agreement by which the alternate CAIR authorized account representative is selected shall include a procedure for

authorizing the alternate CAIR authorized account representative to act in lieu of the CAIR authorized account representative.

(ii) A complete application for a general account shall be submitted to the Administrator and shall include the following elements in a format prescribed by the Administrator:

(A) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the CAIR authorized account representative and any alternate CAIR authorized account representative;

(B) Organization name and type of organization, if applicable;

(C) A list of all persons subject to a binding agreement for the CAIR authorized account representative and any alternate CAIR authorized account representative to represent their ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances held in the general account;

(D) The following certification statement by the CAIR authorized account representative and any alternate CAIR authorized account representative: "I certify that I was selected as the CAIR authorized account representative or the alternate CAIR authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR NO<sub>x</sub> Ozone Season Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account."

(E) The signature of the CAIR authorized account representative and any alternate CAIR authorized account representative and the dates signed.

(iii) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

(2) *Authorization of CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Upon receipt by the Administrator of a complete application

for a general account under paragraph (b)(1) of this section:

(A) The Administrator will establish a general account for the person or persons for whom the application is submitted.

(B) The CAIR authorized account representative and any alternate CAIR authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances held in the general account in all matters pertaining to the CAIR NO<sub>x</sub> Ozone Season Trading Program, notwithstanding any agreement between the CAIR authorized account representative or any alternate CAIR authorized account representative and such person. Any such person shall be bound by any order or decision issued to the CAIR authorized account representative or any alternate CAIR authorized account representative by the Administrator or a court regarding the general account.

(C) Any representation, action, inaction, or submission by any alternate CAIR authorized account representative shall be deemed to be a representation, action, inaction, or submission by the CAIR authorized account representative.

(ii) Each submission concerning the general account shall be submitted, signed, and certified by the CAIR authorized account representative or any alternate CAIR authorized account representative for the persons having an ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances held in the general account. Each such submission shall include the following certification statement by the CAIR authorized account representative or any alternate CAIR authorized account representative: "I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(iii) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (b)(2)(ii) of this section.

(3) *Changing CAIR authorized account representative and alternate CAIR authorized account representative; changes in persons with ownership interest.* (i) The CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new CAIR authorized account representative and the persons with an ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances in the general account.

(ii) The alternate CAIR authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CAIR authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new alternate CAIR authorized account representative and the persons with an ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances in the general account.

(iii)(A) In the event a person having an ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances in the general account is not included in the list of such persons in the application for a general account, such person shall be deemed to be subject to and bound by the application for a general account, the representation, actions, inactions, and submissions of the CAIR authorized account representative and any alternate CAIR authorized account representative of the account, and the decisions and orders of the Administrator or a court, as if the person were included in such list.

(B) Within 30 days following any change in the persons having an ownership interest with respect to CAIR NO<sub>x</sub> Ozone Season allowances in the general account, including the addition

of a new person, the CAIR authorized account representative or any alternate CAIR authorized account representative shall submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the CAIR NO<sub>x</sub> Ozone Season allowances in the general account to include the change.

(4) *Objections concerning CAIR authorized account representative and alternate CAIR authorized account representative.* (i) Once a complete application for a general account under paragraph (b)(1) of this section has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under paragraph (b)(1) of this section is received by the Administrator.

(ii) Except as provided in paragraph (b)(3)(i) or (ii) of this section, no objection or other communication submitted to the Administrator concerning the authorization, or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account shall affect any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative or the finality of any decision or order by the Administrator under the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(iii) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the CAIR authorized account representative or any alternate CAIR authorized account representative for a general account, including private legal disputes concerning the proceeds of CAIR NO<sub>x</sub> Ozone Season allowance transfers.

(5) *Delegation by CAIR authorized account representative and alternate CAIR authorized account representative.* (i) A CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFFF and GGGG of this part.

(ii) An alternate CAIR authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Administrator provided for or required under subparts FFFF and GGGG of this part.

(iii) In order to delegate authority to make an electronic submission to the Administrator in accordance with paragraph (b)(5)(i) or (ii) of this section, the CAIR authorized account representative or alternate CAIR authorized account representative, as appropriate, must submit to the Administrator a notice of delegation, in a format prescribed by the Administrator, that includes the following elements:

(A) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of such CAIR authorized account representative or alternate CAIR authorized account representative;

(B) The name, address, e-mail address, telephone number, and facsimile transmission number (if any) of each such natural person (referred to as an "agent");

(C) For each such natural person, a list of the type or types of electronic submissions under paragraph (b)(5)(i) or (ii) of this section for which authority is delegated to him or her;

(D) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "I agree that any electronic submission to the Administrator that is by an agent identified in this notice of delegation and of a type listed for such agent in this notice of delegation and that is made when I am a CAIR authorized account representative or alternate CAIR authorized representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under 40 CFR 97.351(b)(5)(iv) shall be deemed to be an electronic submission by me."; and

(E) The following certification statement by such CAIR authorized account representative or alternate CAIR authorized account representative: "Until this notice of delegation is superseded by another notice of delegation under 40 CFR 97.351(b)(5)(iv), I agree to maintain an e-mail account and to notify the Administrator immediately of any change in my e-mail address unless all delegation of authority by me under 40 CFR 97.351(b)(5) is terminated.".

(iv) A notice of delegation submitted under paragraph (b)(5)(iii) of this section shall be effective, with regard to the CAIR authorized account representative or alternate CAIR authorized account representative identified in such notice, upon receipt of such notice by the Administrator and until receipt by the Administrator of a superseding notice of delegation submitted by such CAIR authorized account representative or alternate CAIR

authorized account representative, as appropriate. The superseding notice of delegation may replace any previously identified agent, add a new agent, or eliminate entirely any delegation of authority.

(v) Any electronic submission covered by the certification in paragraph (b)(5)(iii)(D) of this section and made in accordance with a notice of delegation effective under paragraph (b)(5)(iv) of this section shall be deemed to be an electronic submission by the CAIR designated representative or alternate CAIR designated representative submitting such notice of delegation.

(c) *Account identification.* The Administrator will assign a unique identifying number to each account established under paragraph (a) or (b) of this section.

#### **§ 97.352 Responsibilities of CAIR authorized account representative.**

Following the establishment of a CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account, all submissions to the Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of CAIR NO<sub>x</sub> Ozone Season allowances in the account, shall be made only by the CAIR authorized account representative for the account.

#### **§ 97.353 Recordation of CAIR NO<sub>x</sub> Ozone Season allowance allocations.**

(a) By September 30, 2007, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season sources compliance account the CAIR NO<sub>x</sub> Ozone Season allowances allocated for the CAIR NO<sub>x</sub> Ozone Season units at the source in accordance with § 97.342(a) and (b) for the control period in 2009.

(b) By September 30, 2008, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season source's compliance account the CAIR NO<sub>x</sub> Ozone Season allowances allocated for the CAIR NO<sub>x</sub> Ozone Season units at the source in accordance with § 97.342(a) and (b) for the control period in 2010.

(c) By September 30, 2009, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season source's compliance account the CAIR Ozone Season NO<sub>x</sub> allowances allocated for the CAIR NO<sub>x</sub> Ozone Season units at the source in accordance with § 97.342(a) and (b) for the control periods in 2011, 2012, and 2013.

(d) By December 1, 2010 and December 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season source's compliance account the CAIR NO<sub>x</sub> Ozone Season allowances allocated for the CAIR NO<sub>x</sub>

Ozone Season units at the source in accordance with § 97.342(a) and (b) for the control period in the fourth year after the year of the applicable deadline for recordation under this paragraph.

(e) By September 1, 2009 and September 1 of each year thereafter, the Administrator will record in the CAIR NO<sub>x</sub> Ozone Season source's compliance account the CAIR NO<sub>x</sub> Ozone Season allowances allocated for the CAIR NO<sub>x</sub> Ozone Season units at the source in accordance with § 97.342(a) and (c) for the control period in the year of the applicable deadline for recordation under this paragraph.

(f) *Serial numbers for allocated CAIR NO<sub>x</sub> Ozone Season allowances.* When recording the allocation of CAIR NO<sub>x</sub> Ozone Season allowances for a CAIR NO<sub>x</sub> Ozone Season unit in a compliance account, the Administrator will assign each CAIR NO<sub>x</sub> Ozone Season allowance a unique identification number that will include digits identifying the year of the control period for which the CAIR NO<sub>x</sub> Ozone Season allowance is allocated.

#### **§ 97.354 Compliance with CAIR NO<sub>x</sub> emissions limitation.**

(a) *Allowance transfer deadline.* The CAIR NO<sub>x</sub> Ozone Season allowances are available to be deducted for compliance with a source's CAIR NO<sub>x</sub> Ozone Season emissions limitation for a control period in a given calendar year only if the CAIR NO<sub>x</sub> Ozone Season allowances:

- (1) Were allocated for the control period in the year or a prior year; and
- (2) Are held in the compliance account as of the allowance transfer deadline for the control period or are transferred into the compliance account by a CAIR NO<sub>x</sub> Ozone Season allowance transfer correctly submitted for recordation under 97.360 and 97.361 by the allowance transfer deadline for the control period.

(b) *Deductions for compliance.* Following the recordation, in accordance with § 97.361, of CAIR NO<sub>x</sub> Ozone Season allowance transfers submitted for recordation in a source's compliance account by the allowance transfer deadline for a control period, the Administrator will deduct from the compliance account CAIR NO<sub>x</sub> Ozone Season allowances available under paragraph (a) of this section in order to determine whether the source meets the CAIR NO<sub>x</sub> Ozone Season emissions limitation for the control period, as follows:

- (1) Until the amount of CAIR NO<sub>x</sub> Ozone Season allowances deducted equals the number of tons of total nitrogen oxides emissions, determined

in accordance with subpart HHHH of this part, from all CAIR NO<sub>x</sub> Ozone Season units at the source for the control period; or

(2) If there are insufficient CAIR NO<sub>x</sub> Ozone Season allowances to complete the deductions in paragraph (b)(1) of this section, until no more CAIR NO<sub>x</sub> Ozone Season allowances available under paragraph (a) of this section remain in the compliance account.

(c)(1) *Identification of CAIR NO<sub>x</sub> Ozone Season allowances by serial number.* The CAIR authorized account representative for a source's compliance account may request that specific CAIR NO<sub>x</sub> Ozone Season allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with paragraph (b) or (d) of this section. Such request shall be submitted to the Administrator by the allowance transfer deadline for the control period and include, in a format prescribed by the Administrator, the identification of the CAIR NO<sub>x</sub> Ozone Season source and the appropriate serial numbers.

(2) *First-in, first-out.* The Administrator will deduct CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (b) or (d) of this section from the source's compliance account, in the absence of an identification or in the case of a partial identification of CAIR NO<sub>x</sub> Ozone Season allowances by serial number under paragraph (c)(1) of this section, on a first-in, first-out (FIFO) accounting basis in the following order:

(i) Any CAIR NO<sub>x</sub> Ozone Season allowances that were allocated to the units at the source, in the order of recordation; and then

(ii) Any CAIR NO<sub>x</sub> Ozone Season allowances that were allocated to any entity and transferred and recorded in the compliance account pursuant to subpart GGGG of this part, in the order of recordation.

(d) *Deductions for excess emissions.*

(1) After making the deductions for compliance under paragraph (b) of this section for a control period in a calendar year in which the CAIR NO<sub>x</sub> Ozone Season source has excess emissions, the Administrator will deduct from the source's compliance account an amount of CAIR NO<sub>x</sub> Ozone Season allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of tons of the source's excess emissions.

(2) Any allowance deduction required under paragraph (d)(1) of this section shall not affect the liability of the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source or the CAIR NO<sub>x</sub> Ozone Season units at the source for any

fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violations, as ordered under the Clean Air Act or applicable State law.

(e) *Recordation of deductions.* The Administrator will record in the appropriate compliance account all deductions from such an account under paragraphs (b) and (d) of this section and subpart III.

(f) *Administrator(s) action on submissions.* (1) The Administrator may review and conduct independent audits concerning any submission under the CAIR NO<sub>x</sub> Ozone Season Trading Program and make appropriate adjustments of the information in the submissions.

(2) The Administrator may deduct CAIR NO<sub>x</sub> Ozone Season allowances from or transfer CAIR NO<sub>x</sub> Ozone Season allowances to a source's compliance account based on the information in the submissions, as adjusted under paragraph (f)(1) of this section, and record such deductions and transfers.

#### **§ 97.355 Banking.**

(a) CAIR NO<sub>x</sub> Ozone Season allowances may be banked for future use or transfer in a compliance account or a general account in accordance with paragraph (b) of this section.

(b) Any CAIR NO<sub>x</sub> Ozone Season allowance that is held in a compliance account or a general account will remain in such account unless and until the CAIR NO<sub>x</sub> Ozone Season allowance is deducted or transferred under § 97.342, § 97.354, § 97.356, or subpart GGGG or IIII of this part.

#### **§ 97.356 Account error.**

The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the CAIR authorized account representative for the account.

#### **§ 97.357 Closing of general accounts.**

(a) The CAIR authorized account representative of a general account may submit to the Administrator a request to close the account, which shall include a correctly submitted allowance transfer under §§ 97.360 and 97.361 for any CAIR NO<sub>x</sub> Ozone Season allowances in the account to one or more other CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts.

(b) If a general account has no allowance transfers in or out of the account for a 12-month period or longer

and does not contain any CAIR NO<sub>x</sub> Ozone Season allowances, the Administrator may notify the CAIR authorized account representative for the account that the account will be closed following 20 business days after the notice is sent. The account will be closed after the 20-day period unless, before the end of the 20-day period, the Administrator receives a correctly submitted transfer of CAIR NO<sub>x</sub> Ozone Season allowances into the account under §§ 97.360 and 97.361 or a statement submitted by the CAIR authorized account representative demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.

### **Subpart GGGG—CAIR NO<sub>x</sub> Ozone Season Allowance Transfers**

#### **§ 97.360 Submission of CAIR NO<sub>x</sub> Ozone Season allowance transfers.**

A CAIR authorized account representative seeking recordation of a CAIR NO<sub>x</sub> Ozone Season allowance transfer shall submit the transfer to the Administrator. To be considered correctly submitted, the CAIR NO<sub>x</sub> Ozone Season allowance transfer shall include the following elements, in a format specified by the Administrator:

(a) The account numbers for both the transferor and transferee accounts;

(b) The serial number of each CAIR NO<sub>x</sub> Ozone Season allowance that is in the transferor account and is to be transferred; and

(c) The name and signature of the CAIR authorized account representative of the transferor account and the date signed.

#### **§ 97.361 EPA recordation.**

(a) Within 5 business days (except as provided in paragraph (b) of this section) of receiving a CAIR NO<sub>x</sub> Ozone Season allowance transfer, the Administrator will record a CAIR NO<sub>x</sub> Ozone Season allowance transfer by moving each CAIR NO<sub>x</sub> Ozone Season allowance from the transferor account to the transferee account as specified by the request, provided that:

(1) The transfer is correctly submitted under § 97.360; and

(2) The transferor account includes each CAIR NO<sub>x</sub> Ozone Season allowance identified by serial number in the transfer.

(b) A CAIR NO<sub>x</sub> Ozone Season allowance transfer that is submitted for recordation after the allowance transfer deadline for a control period and that includes any CAIR NO<sub>x</sub> Ozone Season allowances allocated for any control period before such allowance transfer deadline will not be recorded until after



the Administrator completes the deductions under § 97.354 for the control period immediately before such allowance transfer deadline.

(c) Where a CAIR NO<sub>x</sub> Ozone Season allowance transfer submitted for recordation fails to meet the requirements of paragraph (a) of this section, the Administrator will not record such transfer.

#### § 97.362 Notification.

(a) *Notification of recordation.* Within 5 business days of recordation of a CAIR NO<sub>x</sub> Ozone Season allowance transfer under § 97.361, the Administrator will notify the CAIR authorized account representatives of both the transferor and transferee accounts.

(b) *Notification of non-recordation.* Within 10 business days of receipt of a CAIR NO<sub>x</sub> Ozone Season allowance transfer that fails to meet the requirements of § 97.361(a), the Administrator will notify the CAIR authorized account representatives of both accounts subject to the transfer of:

(1) A decision not to record the transfer, and

(2) The reasons for such non-recordation.

(c) Nothing in this section shall preclude the submission of a CAIR NO<sub>x</sub> Ozone Season allowance transfer for recordation following notification of non-recordation.

#### Subpart HHHH—Monitoring and Reporting

##### § 97.370 General requirements.

The owners and operators, and to the extent applicable, the CAIR designated representative, of a CAIR NO<sub>x</sub> Ozone Season unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this subpart and in subpart H of part 75 of this chapter. For purposes of complying with such requirements, the definitions in § 97.302 and in § 72.2 of this chapter shall apply, and the terms “affected unit,” “designated representative,” and “continuous emission monitoring system” (or “CEMS”) in part 75 of this chapter shall be deemed to refer to the terms “CAIR NO<sub>x</sub> Ozone Season unit,” “CAIR designated representative,” and “continuous emission monitoring system” (or “CEMS”) respectively, as defined in § 97.302. The owner or operator of a unit that is not a CAIR NO<sub>x</sub> Ozone Season unit but that is monitored under § 75.72(b)(2)(ii) of this chapter shall comply with the same monitoring, recordkeeping, and reporting requirements as a CAIR NO<sub>x</sub> Ozone Season unit.

(a) *Requirements for installation, certification, and data accounting.* The owner or operator of each CAIR NO<sub>x</sub> Ozone Season unit shall:

(1) Install all monitoring systems required under this subpart for monitoring NO<sub>x</sub> mass emissions and individual unit heat input (including all systems required to monitor NO<sub>x</sub> emission rate, NO<sub>x</sub> concentration, stack gas moisture content, stack gas flow rate, CO<sub>2</sub> or O<sub>2</sub> concentration, and fuel flow rate, as applicable, in accordance with §§ 75.71 and 75.72 of this chapter);

(2) Successfully complete all certification tests required under § 97.371 and meet all other requirements of this subpart and part 75 of this chapter applicable to the monitoring systems under paragraph (a)(1) of this section; and

(3) Record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

(b) *Compliance deadlines.* Except as provided in paragraph (e) of this section, the owner or operator shall meet the monitoring system certification and other requirements of paragraphs (a)(1) and (2) of this section on or before the following dates. The owner or operator shall record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section on and after the following dates.

(1) For the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit that commences commercial operation before July 1, 2007, by May 1, 2008.

(2) For the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit that commences commercial operation on or after July 1, 2007 and that reports on an annual basis under § 97.374(d), by the later of the following dates:

(i) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation; or

(ii) May 1, 2008.

(3) For the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit that commences commercial operation on or after July 1, 2007 and that reports on a control period basis under § 97.374(d)(2)(ii), by the later of the following dates:

(i) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation; or

(ii) If the compliance date under paragraph (b)(3)(i) of this section is not during a control period, May 1 immediately following the compliance date under paragraph (b)(3)(i) of this section.

(4) For the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit for which construction of a new stack or flue or installation of add-on NO<sub>x</sub> emission controls is completed after the applicable deadline under paragraph (b)(1), (2), (6), or (7) of this section and that reports on an annual basis under § 97.374(d), by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls.

(5) For the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit for which construction of a new stack or flue or installation of add-on NO<sub>x</sub> emission controls is completed after the applicable deadline under paragraph (b)(1), (3), (6), or (7) of this section and that reports on a control period basis under § 97.374(d)(2)(ii), by the later of the following dates:

(i) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls; or

(ii) If the compliance date under paragraph (b)(5)(i) of this section is not during a control period, May 1 immediately following the compliance date under paragraph (b)(5)(i) of this section.

(6) Notwithstanding the dates in paragraphs (b)(1), (2), and (3) of this section, for the owner or operator of a unit for which a CAIR NO<sub>x</sub> Ozone Season opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, by the date specified in § 97.384(b).

(7) Notwithstanding the dates in paragraphs (b)(1), (2), and (3) of this section, for the owner or operator of a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part, by the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program as provided in § 97.384(g).

(c) *Reporting data.* The owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit that does not meet the applicable compliance date set forth in paragraph (b) of this section for any monitoring system under paragraph (a)(1) of this section shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for NO<sub>x</sub> concentration, NO<sub>x</sub> emission rate, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine NO<sub>x</sub> mass emissions and heat input in

accordance with § 75.31(b)(2) or (c)(3) of this chapter, section 2.4 of appendix D to part 75 of this chapter, or section 2.5 of appendix E to part 75 of this chapter, as applicable.

(d) *Prohibitions.* (1) No owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this subpart without having obtained prior written approval in accordance with § 97.375.

(2) No owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall operate the unit so as to discharge, or allow to be discharged, NO<sub>x</sub> emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(3) No owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording NO<sub>x</sub> mass emissions discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(4) No owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under this subpart, except under any one of the following circumstances:

(i) During the period that the unit is covered by an exemption under § 97.305 that is in effect;

(ii) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this subpart and part 75 of this chapter, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(iii) The CAIR designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with § 97.371(d)(3)(i).

(e) *Long-term cold storage.* The owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit is subject to the applicable provisions of part 75 of this chapter concerning units in long-term cold storage.

#### **§ 97.371 Initial certification and recertification procedures.**

(a) The owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall be exempt from the initial certification requirements of this section for a monitoring system under § 97.370(a)(1) if the following conditions are met:

(1) The monitoring system has been previously certified in accordance with part 75 of this chapter; and

(2) The applicable quality-assurance and quality-control requirements of § 75.21 of this chapter and appendix B, appendix D, and appendix E to part 75 of this chapter are fully met for the certified monitoring system described in paragraph (a)(1) of this section.

(b) The recertification provisions of this section shall apply to a monitoring system under § 97.370(a)(1) exempt from initial certification requirements under paragraph (a) of this section.

(c) If the Administrator has previously approved a petition under § 75.17(a) or (b) of this chapter for apportioning the NO<sub>x</sub> emission rate measured in a common stack or a petition under § 75.66 of this chapter for an alternative to a requirement in § 75.12 or § 75.17 of this chapter, the CAIR designated representative shall resubmit the petition to the Administrator under § 97.375 to determine whether the approval applies under the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(d) Except as provided in paragraph (a) of this section, the owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall comply with the following initial certification and recertification procedures for a continuous monitoring system (*i.e.*, a continuous emission monitoring system and an excepted monitoring system under appendices D and E to part 75 of this chapter) under § 97.370(a)(1). The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology under § 75.19 of this chapter or that qualifies to use an alternative monitoring system under subpart E of part 75 of this chapter shall comply with the procedures in paragraph (e) or (f) of this section respectively.

(1) *Requirements for initial certification.* The owner or operator shall ensure that each continuous monitoring system under § 97.370(a)(1) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under § 75.20 of this chapter by the applicable deadline in § 97.370(b). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this subpart in a

location where no such monitoring system was previously installed, initial certification in accordance with § 75.20 of this chapter is required.

(2) *Requirements for recertification.* Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under § 97.370(a)(1) that may significantly affect the ability of the system to accurately measure or record NO<sub>x</sub> mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of § 75.21 of this chapter or appendix B to part 75 of this chapter, the owner or operator shall recertify the monitoring system in accordance with § 75.20(b) of this chapter. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with § 75.20(b) of this chapter. Examples of changes to a continuous emission monitoring system that require recertification include: Replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter systems, and any excepted NO<sub>x</sub> monitoring system under appendix E to part 75 of this chapter, under § 97.370(a)(1) are subject to the recertification requirements in § 75.20(g)(6) of this chapter.

(3) *Approval process for initial certification and recertification.* Paragraphs (d)(3)(i) through (iv) of this section apply to both initial certification and recertification of a continuous monitoring system under § 97.370(a)(1). For recertifications, replace the words "certification" and "initial certification" with the word "recertification", replace the word "certified" with the word "recertified," and follow the procedures in §§ 75.20(b)(5) and (g)(7) of this chapter in lieu of the procedures in paragraph (d)(3)(v) of this section.

(i) *Notification of certification.* The CAIR designated representative shall submit to the appropriate EPA Regional Office and the Administrator written notice of the dates of certification testing, in accordance with § 97.373.

(ii) *Certification application.* The CAIR designated representative shall submit to the Administrator a certification application for each monitoring system. A complete certification application shall include

the information specified in § 75.63 of this chapter.

(iii) *Provisional certification date.* The provisional certification date for a monitoring system shall be determined in accordance with § 75.20(a)(3) of this chapter. A provisionally certified monitoring system may be used under the CAIR NO<sub>x</sub> Ozone Season Trading Program for a period not to exceed 120 days after receipt by the Administrator of the complete certification application for the monitoring system under paragraph (d)(3)(ii) of this section. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of part 75 of this chapter, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Administrator does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Administrator.

(iv) *Certification application approval process.* The Administrator will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (d)(3)(ii) of this section. In the event the Administrator does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of part 75 of this chapter and is included in the certification application will be deemed certified for use under the CAIR NO<sub>x</sub> Ozone Season Trading Program.

(A) *Approval notice.* If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of part 75 of this chapter, then the Administrator will issue a written notice of approval of the certification application within 120 days of receipt.

(B) *Incomplete application notice.* If the certification application is not complete, then the Administrator will issue a written notice of incompleteness that sets a reasonable date by which the CAIR designated representative must submit the additional information required to complete the certification application. If the CAIR designated representative does not comply with the notice of incompleteness by the specified date, then the Administrator may issue a notice of disapproval under paragraph (d)(3)(iv)(C) of this section. The 120-day review period shall not

begin before receipt of a complete certification application.

(C) *Disapproval notice.* If the certification application shows that any monitoring system does not meet the performance requirements of part 75 of this chapter or if the certification application is incomplete and the requirement for disapproval under paragraph (d)(3)(iv)(B) of this section is met, then the Administrator will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Administrator and the data measured and recorded by each uncertified monitoring system shall not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under § 75.20(a)(3) of this chapter). The owner or operator shall follow the procedures for loss of certification in paragraph (d)(3)(v) of this section for each monitoring system that is disapproved for initial certification.

(D) *Audit decertification.* The Administrator may issue a notice of disapproval of the certification status of a monitor in accordance with § 97.372(b).

(v) *Procedures for loss of certification.* If the Administrator issues a notice of disapproval of a certification application under paragraph (d)(3)(iv)(C) of this section or a notice of disapproval of certification status under paragraph (d)(3)(iv)(D) of this section, then:

(A) The owner or operator shall substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under § 75.20(a)(4)(iii), § 75.20(g)(7), or § 75.21(e) of this chapter and continuing until the applicable date and hour specified under § 75.20(a)(5)(i) or (g)(7) of this chapter:

(1) For a disapproved NO<sub>x</sub> emission rate (*i.e.*, NO<sub>x</sub>-diluent) system, the maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter.

(2) For a disapproved NO<sub>x</sub> pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential concentration of NO<sub>x</sub> and the maximum potential flow rate, as defined in sections 2.1.2.1 and 2.1.4.1 of appendix A to part 75 of this chapter.

(3) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub>

concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to part 75 of this chapter.

(4) For a disapproved fuel flowmeter system, the maximum potential fuel flow rate, as defined in section 2.4.2.1 of appendix D to part 75 of this chapter.

(5) For a disapproved excepted NO<sub>x</sub> monitoring system under appendix E to part 75 of this chapter, the fuel-specific maximum potential NO<sub>x</sub> emission rate, as defined in § 72.2 of this chapter.

(B) The CAIR designated representative shall submit a notification of certification retest dates and a new certification application in accordance with paragraphs (d)(3)(i) and (ii) of this section.

(C) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Administrator's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.

(e) *Initial certification and recertification procedures for units using the low mass emission excepted methodology under § 75.19 of this chapter.* The owner or operator of a unit qualified to use the low mass emissions (LME) excepted methodology under § 75.19 of this chapter shall meet the applicable certification and recertification requirements in §§ 75.19(a)(2) and 75.20(h) of this chapter. If the owner or operator of such a unit elects to certify a fuel flowmeter system for heat input determination, the owner or operator shall also meet the certification and recertification requirements in § 75.20(g) of this chapter.

(f) *Certification/recertification procedures for alternative monitoring systems.* The CAIR designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator under subpart E of part 75 of this chapter shall comply with the applicable notification and application procedures of § 75.20(f) of this chapter.

#### § 97.372 Out of control periods.

(a) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of part 75 of this chapter, data shall be substituted using the applicable missing data procedures in subpart D or subpart H of, or appendix D or appendix E to, part 75 of this chapter.

(b) *Audit decertification.* Whenever both an audit of a monitoring system and a review of the initial certification

or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under § 97.371 or the applicable provisions of part 75 of this chapter, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the permitting authority or the Administrator. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in § 97.371 for each disapproved monitoring system.

#### § 97.373 Notifications.

The CAIR designated representative for a CAIR NO<sub>x</sub> Ozone Season unit shall submit written notice to the Administrator in accordance with § 75.61 of this chapter.

#### § 97.374 Recordkeeping and reporting.

(a) *General provisions.* The CAIR designated representative shall comply with all recordkeeping and reporting requirements in this section, the applicable recordkeeping and reporting requirements under § 75.73 of this chapter, and the requirements of § 97.310(e)(1).

(b) *Monitoring Plans.* The owner or operator of a CAIR NO<sub>x</sub> Ozone Season unit shall comply with requirements of § 75.73 (c) and (e) of this chapter and, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, §§ 97.383 and 97.384(a).

(c) *Certification Applications.* The CAIR designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under § 97.371, including the information required under § 75.63 of this chapter.

(d) *Quarterly reports.* The CAIR designated representative shall submit quarterly reports, as follows:

(1) If the CAIR NO<sub>x</sub> Ozone Season unit is subject to an Acid Rain emissions limitation or a CAIR NO<sub>x</sub> emissions limitation or if the owner or operator of such unit chooses to report on an annual basis under this subpart, the CAIR designated representative shall meet the requirements of subpart H of part 75 of this chapter (concerning monitoring of NO<sub>x</sub> mass emissions) for such unit for the entire year and shall report the NO<sub>x</sub> mass emissions data and heat input data for such unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

(i) For a unit that commences commercial operation before July 1, 2007, the calendar quarter covering May 1, 2008 through June 30, 2008;

(ii) For a unit that commences commercial operation on or after July 1, 2007, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under § 97.370(b), unless that quarter is the third or fourth quarter of 2007 or the first quarter of 2008, in which case reporting shall commence in the quarter covering May 1, 2008 through June 30, 2008;

(iii) Notwithstanding paragraphs (d)(1) (i) and (ii) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, the calendar quarter corresponding to the date specified in § 97.384(b); and

(iv) Notwithstanding paragraphs (d)(1) (i) and (ii) of this section, for a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program as provided in § 97.384(g).

(2) If the CAIR NO<sub>x</sub> Ozone Season unit is not subject to an Acid Rain emissions limitation or a CAIR NO<sub>x</sub> emissions limitation, then the CAIR designated representative shall either:

(i) Meet the requirements of subpart H of part 75 (concerning monitoring of NO<sub>x</sub> mass emissions) for such unit for the entire year and report the NO<sub>x</sub> mass emissions data and heat input data for such unit in accordance with paragraph (d)(1) of this section; or

(ii) Meet the requirements of subpart H of part 75 for the control period (including the requirements in § 75.74(c) of this chapter) and report

NO<sub>x</sub> mass emissions data and heat input data (including the data described in § 75.74(c)(6) of this chapter) for such unit only for the control period of each year and report, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

(A) For a unit that commences commercial operation before July 1, 2007, the calendar quarter covering May 1, 2008 through June 30, 2008;

(B) For a unit that commences commercial operation on or after July 1, 2007, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under § 97.370(b), unless that date is not during a control period, in which case reporting shall commence in the quarter that includes May 1 through June 30 of the first control period after such date;

(C) Notwithstanding paragraphs (d)(2)(ii)(A) and (2)(ii)(B) of this section, for a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under subpart IIII of this part, the calendar quarter corresponding to the date specified in § 97.384(b); and

(D) Notwithstanding paragraphs (d)(2)(ii)(A) and (2)(ii)(B) of this section, for a CAIR NO<sub>x</sub> Ozone Season opt-in unit under subpart IIII of this part, the calendar quarter corresponding to the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program as provided in § 97.384(g).

(3) The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in § 75.73(f) of this chapter.

(4) For CAIR NO<sub>x</sub> Ozone Season units that are also subject to an Acid Rain emissions limitation or the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, or Hg Budget Trading Program, quarterly reports shall include the applicable data and information required by subparts F through I of part 75 of this chapter as applicable, in addition to the NO<sub>x</sub> mass emission data, heat input data, and other information required by this subpart.

(e) *Compliance certification.* The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons

with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(1) The monitoring data submitted were recorded in accordance with the applicable requirements of this subpart and part 75 of this chapter, including the quality assurance procedures and specifications;

(2) For a unit with add-on NO<sub>x</sub> emission controls and for all hours where NO<sub>x</sub> data are substituted in accordance with § 75.34(a)(1) of this chapter, the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to part 75 of this chapter and the substitute data values do not systematically underestimate NO<sub>x</sub> emissions; and

(3) For a unit that is reporting on a control period basis under paragraph (d)(2)(ii) of this section, the NO<sub>x</sub> emission rate and NO<sub>x</sub> concentration values substituted for missing data under subpart D of part 75 of this chapter are calculated using only values from a control period and do not systematically underestimate NO<sub>x</sub> emissions.

#### § 97.375 Petitions.

The CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season unit may submit a petition under § 75.66 of this chapter to the Administrator requesting approval to apply an alternative to any requirement of this subpart. Application of an alternative to any requirement of this subpart is in accordance with this subpart only to the extent that the petition is approved in writing by the Administrator, in consultation with the permitting authority.

#### Subpart III—CAIR NO<sub>x</sub> Ozone Season Opt-in Units

##### § 97.380 Applicability.

A CAIR NO<sub>x</sub> Ozone Season opt-in unit must be a unit that:

(a) Is located in a State that submits, and for which the Administrator approves, a State implementation plan revision in accordance with § 51.123(ee)(3) (i), (ii), or (iii) of this chapter establishing procedures concerning CAIR Ozone Season opt-in units;

(b) Is not a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 and is not covered by a retired unit exemption under § 97.305 that is in effect;

(c) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect;

(d) Has or is required or qualified to have a title V operating permit or other federally enforceable permit; and

(e) Vents all of its emissions to a stack and can meet the monitoring, recordkeeping, and reporting requirements of subpart HHHH of this part.

##### § 97.381 General.

(a) Except as otherwise provided in §§ 97.301 through 97.304, §§ 97.306 through 97.308, and subparts BBBB and CCCC and subparts FFFF through HHHH of this part, a CAIR NO<sub>x</sub> Ozone Season opt-in unit shall be treated as a CAIR NO<sub>x</sub> Ozone Season unit for purposes of applying such sections and subparts of this part.

(b) Solely for purposes of applying, as provided in this subpart, the requirements of subpart HHHH of this part to a unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, such unit shall be treated as a CAIR NO<sub>x</sub> Ozone Season unit before issuance of a CAIR opt-in permit for such unit.

##### § 97.382 CAIR designated representative.

Any CAIR NO<sub>x</sub> Ozone Season opt-in unit, and any unit for which a CAIR opt-in permit application is submitted and not withdrawn and a CAIR opt-in permit is not yet issued or denied under this subpart, located at the same source as one or more CAIR NO<sub>x</sub> Ozone Season units shall have the same CAIR designated representative and alternate CAIR designated representative as such CAIR NO<sub>x</sub> Ozone Season units.

##### § 97.383 Applying for CAIR opt-in permit.

(a) *Applying for initial CAIR opt-in permit.* The CAIR designated representative of a unit meeting the requirements for a CAIR NO<sub>x</sub> Ozone Season opt-in unit in § 97.380 may apply for an initial CAIR opt-in permit at any time, except as provided under § 97.386 (f) and (g), and, in order to apply, must submit the following:

(1) A complete CAIR permit application under § 97.322;

(2) A certification, in a format specified by the permitting authority, that the unit:

(i) Is not a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 and is not covered by a retired unit exemption under § 97.305 that is in effect;

(ii) Is not covered by a retired unit exemption under § 72.8 of this chapter that is in effect;

(iii) Vents all of its emissions to a stack; and

(iv) Has documented heat input for more than 876 hours during the 6

months immediately preceding submission of the CAIR permit application under § 97.322;

(3) A monitoring plan in accordance with subpart HHHH of this part;

(4) A complete certificate of representation under § 97.313 consistent with § 97.382, if no CAIR designated representative has been previously designated for the source that includes the unit; and

(5) A statement, in a format specified by the permitting authority, whether the CAIR designated representative requests that the unit be allocated CAIR NO<sub>x</sub> Ozone Season allowances under § 97.380(b) or § 97.388(c) (subject to the conditions in §§ 97.384(h) and 97.386(g)), to the extent such allocation is provided in a State implementation plan revision submitted in accordance with § 51.123(ee)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator. If allocation under § 97.388(c) is requested, this statement shall include a statement that the owners and operators intend to repower the unit before January 1, 2015 and that they will provide, upon request, documentation demonstrating such intent.

(b) *Duty to reapply.* (1) The CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season opt-in unit shall submit a complete CAIR permit application under § 97.322 to renew the CAIR opt-in unit permit in accordance with the permitting authority's regulations for title V operating permits, or the permitting authority's regulations for other federally enforceable permits if applicable, addressing permit renewal.

(2) Unless the permitting authority issues a notification of acceptance of withdrawal of the CAIR NO<sub>x</sub> Ozone Season opt-in unit from the CAIR NO<sub>x</sub> Ozone Season Trading Program in accordance with § 97.386 or the unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, the CAIR NO<sub>x</sub> Ozone Season opt-in unit shall remain subject to the requirements for a CAIR NO<sub>x</sub> Ozone Season opt-in unit, even if the CAIR designated representative for the CAIR NO<sub>x</sub> Ozone Season opt-in unit fails to submit a CAIR permit application that is required for renewal of the CAIR opt-in permit under paragraph (b)(1) of this section.

##### § 97.384 Opt-in process.

The permitting authority will issue or deny a CAIR opt-in permit for a unit for which an initial application for a CAIR opt-in permit under § 97.383 is submitted in accordance with the following, to the extent provided in a State implementation plan revision submitted in accordance with

§ 51.123(ee)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(a) *Interim review of monitoring plan.* The permitting authority and the Administrator will determine, on an interim basis, the sufficiency of the monitoring plan accompanying the initial application for a CAIR opt-in permit under § 97.383. A monitoring plan is sufficient, for purposes of interim review, if the plan appears to contain information demonstrating that the NO<sub>x</sub> emissions rate and heat input of the unit and all other applicable parameters are monitored and reported in accordance with subpart HHHH of this part. A determination of sufficiency shall not be construed as acceptance or approval of the monitoring plan.

(b) *Monitoring and reporting.* (1)(i) If the permitting authority and the Administrator determine that the monitoring plan is sufficient under paragraph (a) of this section, the owner or operator shall monitor and report the NO<sub>x</sub> emissions rate and the heat input of the unit and all other applicable parameters, in accordance with subpart HHHH of this part, starting on the date of certification of the appropriate monitoring systems under subpart HHHH of this part and continuing until a CAIR opt-in permit is denied under § 97.384(f) or, if a CAIR opt-in permit is issued, the date and time when the unit is withdrawn from the CAIR NO<sub>x</sub> Ozone Season Trading Program in accordance with § 97.386.

(ii) The monitoring and reporting under paragraph (b)(1)(i) of this section shall include the entire control period immediately before the date on which the unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g), during which period monitoring system availability must not be less than 90 percent under subpart HHHH of this part and the unit must be in full compliance with any applicable State or Federal emissions or emissions-related requirements.

(2) To the extent the NO<sub>x</sub> emissions rate and the heat input of the unit are monitored and reported in accordance with subpart HHHH of this part for one or more control periods, in addition to the control period under paragraph (b)(1)(ii) of this section, during which control periods monitoring system availability is not less than 90 percent under subpart HHHH of this part and the unit is in full compliance with any applicable State or Federal emissions or emissions-related requirements and which control periods begin not more than 3 years before the unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g), such

information shall be used as provided in paragraphs (c) and (d) of this section.

(c) *Baseline heat input.* The unit's baseline heat rate shall equal:

(1) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's total heat input (in mmBtu) for the control period; or

(2) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, the average of the amounts of the unit's total heat input (in mmBtu) for the control periods under paragraphs (b)(1)(ii) and (2) of this section.

(d) *Baseline NO<sub>x</sub> emission rate.* The unit's baseline NO<sub>x</sub> emission rate shall equal:

(1) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for only one control period, in accordance with paragraph (b)(1) of this section, the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for the control period;

(2) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit does not have add-on NO<sub>x</sub> emission controls during any such control periods, the average of the amounts of the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for the control periods under paragraphs (b)(1)(ii) and (2) of this section; or

(3) If the unit's NO<sub>x</sub> emissions rate and heat input are monitored and reported for more than one control period, in accordance with paragraphs (b)(1) and (2) of this section, and the unit has add-on NO<sub>x</sub> emission controls during any such control periods, the average of the amounts of the unit's NO<sub>x</sub> emissions rate (in lb/mmBtu) for such control periods during which the unit has add-on NO<sub>x</sub> emission controls.

(e) *Issuance of CAIR opt-in permit.* After calculating the baseline heat input and the baseline NO<sub>x</sub> emissions rate for the unit under paragraphs (c) and (d) of this section and if the permitting authority determines that the CAIR designated representative shows that the unit meets the requirements for a CAIR NO<sub>x</sub> Ozone Season opt-in unit in § 97.380 and meets the elements certified in § 97.383(a)(2), the permitting authority will issue a CAIR opt-in permit. The permitting authority will provide a copy of the CAIR opt-in permit to the Administrator, who will then establish a compliance account for the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit unless the

source already has a compliance account.

(f) *Issuance of denial of CAIR opt-in permit.* Notwithstanding paragraphs (a) through (e) of this section, if at any time before issuance of a CAIR opt-in permit for the unit, the permitting authority determines that the CAIR designated representative fails to show that the unit meets the requirements for a CAIR NO<sub>x</sub> Ozone Season opt-in unit in § 97.380 or meets the elements certified in § 97.383(a)(2), the permitting authority will issue a denial of a CAIR opt-in permit for the unit.

(g) *Date of entry into CAIR NO<sub>x</sub> Ozone Season Trading Program.* A unit for which an initial CAIR opt-in permit is issued by the permitting authority shall become a CAIR NO<sub>x</sub> Ozone Season opt-in unit, and a CAIR NO<sub>x</sub> Ozone Season unit, as of the later of May 1, 2009 or May 1 of the first control period during which such CAIR opt-in permit is issued.

(h) *Repowered CAIR NO<sub>x</sub> Ozone Season opt-in unit.* (1) If CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit providing for, allocation to a CAIR NO<sub>x</sub> Ozone Season opt-in unit of CAIR NO<sub>x</sub> Ozone Season allowances under § 97.388(c) and such unit is repowered after its date of entry into the CAIR NO<sub>x</sub> Ozone Season Trading Program under paragraph (g) of this section, the repowered unit shall be treated as a CAIR NO<sub>x</sub> Ozone Season opt-in unit replacing the original CAIR NO<sub>x</sub> Ozone Season opt-in unit, as of the date of start-up of the repowered unit's combustion chamber.

(2) Notwithstanding paragraphs (c) and (d) of this section, as of the date of start-up under paragraph (h)(1) of this section, the repowered unit shall be deemed to have the same date of commencement of operation, date of commencement of commercial operation, baseline heat input, and baseline NO<sub>x</sub> emission rate as the original CAIR NO<sub>x</sub> Ozone Season opt-in unit, and the original CAIR NO<sub>x</sub> Ozone Season opt-in unit shall no longer be treated as a CAIR NO<sub>x</sub> Ozone Season opt-in unit or a CAIR NO<sub>x</sub> Ozone Season unit.

#### **§ 97.385 CAIR opt-in permit contents.**

(a) Each CAIR opt-in permit will contain:

(1) All elements required for a complete CAIR permit application under § 97.322;

(2) The certification in § 97.383(a)(2);

(3) The unit's baseline heat input under § 97.384(c);

(4) The unit's baseline NO<sub>x</sub> emission rate under § 97.384(d);

(5) A statement whether the unit is to be allocated CAIR NO<sub>x</sub> Ozone Season allowances under § 97.388(b) or § 97.388(c) (subject to the conditions in §§ 97.384(h) and 97.386(g));

(6) A statement that the unit may withdraw from the CAIR NO<sub>x</sub> Ozone Season Trading Program only in accordance with § 97.386; and

(7) A statement that the unit is subject to, and the owners and operators of the unit must comply with, the requirements of § 97.387.

(b) Each CAIR opt-in permit is deemed to incorporate automatically the definitions of terms under § 97.302 and, upon recordation by the Administrator under subpart FFFF or GGGG of this part or this subpart, every allocation, transfer, or deduction of CAIR NO<sub>x</sub> Ozone Season allowances to or from the compliance account of the source that includes a CAIR NO<sub>x</sub> Ozone Season opt-in unit covered by the CAIR opt-in permit.

(c) The CAIR opt-in permit shall be included, in a format specified by the permitting authority, in the CAIR permit for the source where the CAIR NO<sub>x</sub> Ozone Season opt-in unit is located and in a title V operating permit or other federally enforceable permit for the source.

**§ 97.386 Withdrawal from CAIR NO<sub>x</sub> Ozone Season Trading Program.**

Except as provided under paragraph (g) of this section, a CAIR NO<sub>x</sub> Ozone Season opt-in unit may withdraw from the CAIR NO<sub>x</sub> Ozone Season Trading Program, but only if the permitting authority issues a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season opt-in unit of the acceptance of the withdrawal of the CAIR NO<sub>x</sub> Ozone Season opt-in unit in accordance with paragraph (d) of this section.

(a) *Requesting withdrawal.* In order to withdraw a CAIR NO<sub>x</sub> Ozone Season opt-in unit from the CAIR NO<sub>x</sub> Ozone Season Trading Program, the CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season opt-in unit shall submit to the permitting authority a request to withdraw effective as of midnight of September 30 of a specified calendar year, which date must be at least 4 years after September 30 of the year of entry into the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g). The request must be submitted no later than 90 days before the requested effective date of withdrawal.

(b) *Conditions for withdrawal.* Before a CAIR NO<sub>x</sub> Ozone Season opt-in unit covered by a request under paragraph (a) of this section may withdraw from

the CAIR NO<sub>x</sub> Ozone Season Trading Program and the CAIR opt-in permit may be terminated under paragraph (e) of this section, the following conditions must be met:

(1) For the control period ending on the date on which the withdrawal is to be effective, the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit must meet the requirement to hold CAIR NO<sub>x</sub> Ozone Season allowances under § 97.306(c) and cannot have any excess emissions.

(2) After the requirement for withdrawal under paragraph (b)(1) of this section is met, the Administrator will deduct from the compliance account of the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit CAIR NO<sub>x</sub> Ozone Season allowances equal in amount to and allocated for the same or a prior control period as any CAIR NO<sub>x</sub> Ozone Season allowances allocated to the CAIR NO<sub>x</sub> Ozone Season opt-in unit under § 97.388 for any control period for which the withdrawal is to be effective. If there are no remaining CAIR NO<sub>x</sub> Ozone Season units at the source, the Administrator will close the compliance account, and the owners and operators of the CAIR NO<sub>x</sub> Ozone Season opt-in unit may submit a CAIR NO<sub>x</sub> Ozone Season allowance transfer for any remaining CAIR NO<sub>x</sub> Ozone Season allowances to another CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System in accordance with subpart GGGG of this part.

(c) *Notification.* (1) After the requirements for withdrawal under paragraphs (a) and (b) of this section are met (including deduction of the full amount of CAIR NO<sub>x</sub> Ozone Season allowances required), the permitting authority will issue a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season opt-in unit of the acceptance of the withdrawal of the CAIR NO<sub>x</sub> Ozone Season opt-in unit as of midnight on September 30 of the calendar year for which the withdrawal was requested.

(2) If the requirements for withdrawal under paragraphs (a) and (b) of this section are not met, the permitting authority will issue a notification to the CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season opt-in unit that the CAIR NO<sub>x</sub> Ozone Season opt-in unit's request to withdraw is denied. Such CAIR NO<sub>x</sub> Ozone Season opt-in unit shall continue to be a CAIR NO<sub>x</sub> Ozone Season opt-in unit.

(d) *Permit amendment.* After the permitting authority issues a notification under paragraph (c)(1) of this section that the requirements for withdrawal have been met, the

permitting authority will revise the CAIR permit covering the CAIR NO<sub>x</sub> Ozone Season opt-in unit to terminate the CAIR opt-in permit for such unit as of the effective date specified under paragraph (c)(1) of this section. The unit shall continue to be a CAIR NO<sub>x</sub> Ozone Season opt-in unit until the effective date of the termination and shall comply with all requirements under the CAIR NO<sub>x</sub> Ozone Season Trading Program concerning any control periods for which the unit is a CAIR NO<sub>x</sub> Ozone Season opt-in unit, even if such requirements arise or must be complied with after the withdrawal takes effect.

(e) *Reapplication upon failure to meet conditions of withdrawal.* If the permitting authority denies the CAIR NO<sub>x</sub> Ozone Season opt-in unit's request to withdraw, the CAIR designated representative may submit another request to withdraw in accordance with paragraphs (a) and (b) of this section.

(f) *Ability to reapply to the CAIR NO<sub>x</sub> Ozone Season Trading Program.* Once a CAIR NO<sub>x</sub> Ozone Season opt-in unit withdraws from the CAIR NO<sub>x</sub> Ozone Season Trading Program and its CAIR opt-in permit is terminated under this section, the CAIR designated representative may not submit another application for a CAIR opt-in permit under § 97.383 for such CAIR NO<sub>x</sub> Ozone Season opt-in unit before the date that is 4 years after the date on which the withdrawal became effective. Such new application for a CAIR opt-in permit will be treated as an initial application for a CAIR opt-in permit under § 97.384.

(g) *Inability to withdraw.* Notwithstanding paragraphs (a) through (f) of this section, a CAIR NO<sub>x</sub> Ozone Season opt-in unit shall not be eligible to withdraw from the CAIR NO<sub>x</sub> Ozone Season Trading Program if the CAIR designated representative of the CAIR NO<sub>x</sub> Ozone Season opt-in unit requests, and the permitting authority issues a CAIR opt-in permit providing for, allocation to the CAIR NO<sub>x</sub> Ozone Season opt-in unit of CAIR NO<sub>x</sub> Ozone Season allowances under § 97.388(c).

**§ 97.387 Change in regulatory status.**

(a) *Notification.* If a CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, then the CAIR designated representative shall notify in writing the permitting authority and the Administrator of such change in the CAIR NO<sub>x</sub> Ozone Season opt-in unit's regulatory status, within 30 days of such change.

(b) *Permitting authority's and Administrator's actions.* (1) If a CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under



§ 97.304, the permitting authority will revise the CAIR NO<sub>x</sub> Ozone Season opt-in unit's CAIR opt-in permit to meet the requirements of a CAIR permit under § 97.323, and remove the CAIR opt-in permit provisions, as of the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304.

(2)(i) The Administrator will deduct from the compliance account of the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit that becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, CAIR NO<sub>x</sub> Ozone Season allowances equal in amount to and allocated for the same or a prior control period as:

(A) Any CAIR NO<sub>x</sub> Ozone Season allowances allocated to the CAIR NO<sub>x</sub> Ozone Season opt-in unit under § 97.388 for any control period after the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304; and

(B) If the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 is not September 30, the CAIR NO<sub>x</sub> Ozone Season allowances allocated to the CAIR NO<sub>x</sub> Ozone Season opt-in unit under § 97.388 for the control period that includes the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, multiplied by the ratio of the number of days, in the control period, starting with the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 divided by the total number of days in the control period and rounded to the nearest whole allowance as appropriate.

(ii) The CAIR designated representative shall ensure that the compliance account of the source that includes the CAIR NO<sub>x</sub> Ozone Season unit that becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 contains the CAIR NO<sub>x</sub> Ozone Season allowances necessary for completion of the deduction under paragraph (b)(2)(i) of this section.

(3)(i) For every control period after the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, the CAIR NO<sub>x</sub> Ozone Season opt-in unit will be allocated CAIR NO<sub>x</sub> Ozone Season allowances under § 97.342.

(ii) If the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304 is not September 30, the following amount of CAIR NO<sub>x</sub> Ozone Season allowances will be allocated to the CAIR NO<sub>x</sub> Ozone Season opt-in unit (as a CAIR NO<sub>x</sub> Ozone Season unit)

under § 97.342 for the control period that includes the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304:

(A) The amount of CAIR NO<sub>x</sub> Ozone Season allowances otherwise allocated to the CAIR NO<sub>x</sub> Ozone Season opt-in unit (as a CAIR NO<sub>x</sub> Ozone Season unit) under § 97.342 for the control period multiplied by;

(B) The ratio of the number of days, in the control period, starting with the date on which the CAIR NO<sub>x</sub> Ozone Season opt-in unit becomes a CAIR NO<sub>x</sub> Ozone Season unit under § 97.304, divided by the total number of days in the control period; and

(C) Rounded to the nearest whole allowance as appropriate.

**§ 97.388 CAIR NO<sub>x</sub> Ozone Season allowance allocations to CAIR NO<sub>x</sub> Ozone Season opt-in units.**

(a) *Timing requirements.* (1) When the CAIR opt-in permit is issued under § 97.384(e), the permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to the CAIR NO<sub>x</sub> Ozone Season opt-in unit, and submit to the Administrator the allocation for the control period in which a CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g), in accordance with paragraph (b) or (c) of this section.

(2) By no later than July 31 of the control period after the control period in which a CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g) and July 31 of each year thereafter, the permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to the CAIR NO<sub>x</sub> Ozone Season opt-in unit, and submit to the Administrator the allocation for the control period that includes such submission deadline and in which the unit is a CAIR NO<sub>x</sub> Ozone Season opt-in unit, in accordance with paragraph (b) or (c) of this section.

(b) *Calculation of allocation.* For each control period for which a CAIR NO<sub>x</sub> Ozone Season opt-in unit is to be allocated CAIR NO<sub>x</sub> Ozone Season allowances, the permitting authority will allocate in accordance with the following procedures, if provided in a State implementation plan revision submitted in accordance with § 51.123(ee)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) The heat input (in mmBtu) used for calculating the CAIR NO<sub>x</sub> Ozone Season allowance allocation will be the lesser of:

(i) The CAIR NO<sub>x</sub> Ozone Season opt-in unit's baseline heat input determined under § 97.384(c); or

(ii) The CAIR NO<sub>x</sub> Ozone Season opt-in unit's heat input, as determined in accordance with subpart HHHH of this part, for the immediately prior control period, except when the allocation is being calculated for the control period in which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g).

(2) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating CAIR NO<sub>x</sub> Ozone Season allowance allocations will be the lesser of:

(i) The CAIR NO<sub>x</sub> Ozone Season opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.384(d) and multiplied by 70 percent; or

(ii) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> Ozone Season opt-in unit at any time during the control period for which CAIR NO<sub>x</sub> Ozone Season allowances are to be allocated.

(3) The permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to the CAIR NO<sub>x</sub> Ozone Season opt-in unit in an amount equaling the heat input under paragraph (b)(1) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (b)(2) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(c) Notwithstanding paragraph (b) of this section and if the CAIR designated representative requests, and the permitting authority issues a CAIR opt-in permit (based on a demonstration of the intent to repower stated under § 97.383 (a)(5)) providing for, allocation to a CAIR NO<sub>x</sub> Ozone Season opt-in unit of CAIR NO<sub>x</sub> Ozone Season allowances under this paragraph (subject to the conditions in §§ 97.384(h) and 97.386(g)), the permitting authority will allocate to the CAIR NO<sub>x</sub> Ozone Season opt-in unit as follows, if provided in a State implementation plan revision submitted in accordance with § 51.123(ee)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) For each control period in 2009 through 2014 for which the CAIR NO<sub>x</sub> Ozone Season opt-in unit is to be allocated CAIR NO<sub>x</sub> Ozone Season allowances,

(i) The heat input (in mmBtu) used for calculating CAIR NO<sub>x</sub> Ozone Season allowance allocations will be determined as described in paragraph (b)(1) of this section.

(ii) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating CAIR NO<sub>x</sub> Ozone Season allowance allocations will be the lesser of:

(A) The CAIR NO<sub>x</sub> Ozone Season opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.384(d); or

(B) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> Ozone Season opt-in unit at any time during the control period in which the CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub> Ozone Season Trading Program under § 97.384(g).

(iii) The permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to the CAIR NO<sub>x</sub> Ozone Season opt-in unit in an amount equaling the heat input under paragraph (c)(1)(i) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (c)(1)(ii) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(2) For each control period in 2015 and thereafter for which the CAIR NO<sub>x</sub> Ozone Season opt-in unit is to be allocated CAIR NO<sub>x</sub> Ozone Season allowances,

(i) The heat input (in mmBtu) used for calculating the CAIR NO<sub>x</sub> Ozone Season allowance allocations will be determined as described in paragraph (b)(1) of this section.

(ii) The NO<sub>x</sub> emission rate (in lb/mmBtu) used for calculating the CAIR

NO<sub>x</sub> Ozone Season allowance allocation will be the lesser of:

(A) 0.15 lb/mmBtu;

(B) The CAIR NO<sub>x</sub> Ozone Season opt-in unit's baseline NO<sub>x</sub> emissions rate (in lb/mmBtu) determined under § 97.384(d); or

(C) The most stringent State or Federal NO<sub>x</sub> emissions limitation applicable to the CAIR NO<sub>x</sub> Ozone Season opt-in unit at any time during the control period for which CAIR NO<sub>x</sub> Ozone Season allowances are to be allocated.

(iii) The permitting authority will allocate CAIR NO<sub>x</sub> Ozone Season allowances to the CAIR NO<sub>x</sub> Ozone Season opt-in unit in an amount equaling the heat input under paragraph (c)(2)(i) of this section, multiplied by the NO<sub>x</sub> emission rate under paragraph (c)(2)(ii) of this section, divided by 2,000 lb/ton, and rounded to the nearest whole allowance as appropriate.

(d) *Recordation.* If provided in a State implementation plan revision submitted in accordance with § 51.123(ee)(3)(i), (ii), or (iii) of this chapter and approved by the Administrator:

(1) The Administrator will record, in the compliance account of the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit, the CAIR NO<sub>x</sub> Ozone Season allowances allocated by the permitting authority to the CAIR NO<sub>x</sub> Ozone Season opt-in unit under paragraph (a)(1) of this section.

(2) By September 1 of the control period in which a CAIR NO<sub>x</sub> Ozone Season opt-in unit enters the CAIR NO<sub>x</sub>

Ozone Season Trading Program under § 97.384(g) and September 1 of each year thereafter, the Administrator will record, in the compliance account of the source that includes the CAIR NO<sub>x</sub> Ozone Season opt-in unit, the CAIR NO<sub>x</sub> Ozone Season allowances allocated by the permitting authority to the CAIR NO<sub>x</sub> Ozone Season opt-in unit under paragraph (a)(2) of this section.

#### **Appendix A to Subpart IIII of Part 97— States With Approved State Implementation Plan Revisions Concerning CAIR NO<sub>x</sub> Ozone Season Opt-in Units**

1. The following States have State Implementation Plan revisions under § 51.123(ee)(3) of this chapter approved by the Administrator and establishing procedures providing for CAIR NO<sub>x</sub> Ozone Season opt-in units under subpart IIII of this part and allocation of CAIR NO<sub>x</sub> Ozone Season allowances to such units under § 97.388(b):

[Reserved]

2. The following States have State Implementation Plan revisions under § 51.123(ee)(3) of this chapter approved by the Administrator and establishing procedures providing for CAIR NO<sub>x</sub> Ozone Season opt-in units under subpart IIII of this part and allocation of CAIR NO<sub>x</sub> Ozone Season allowances to such units under § 97.388(c):

[Reserved]

[FR Doc. 06–2692 Filed 4–27–06; 8:45 am]

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## Base K/Round 4 Modeling: Summary (DRAFT)

The purpose of this document is to summarize the results of the latest 2002 base year (Base K) and 2008, 2009, 2012, and 2018 future year (Round 4) modeling<sup>1</sup>. Based on these results, several key findings should be noted:

- Model performance for ozone and PM2.5 (most species) is acceptable and, thus, use of the model for planning purposes is appropriate. Comparisons of modeled and monitored ozone and PM2.5 (most species) concentrations generally shows good agreement. PM2.5-organic carbon concentrations, however, are not well represented by the model.
- Existing (“on the books”) controls are expected to provide considerable improvement in air quality, but will not be enough to provide for attainment at all monitoring locations for ozone and PM2.5. Additional emission reductions are needed for attainment.
- Attainment by 2009 for ozone and PM2.5, even with consideration of additional emission reductions, appears to be difficult. Attainment by 2012 appears to be possible with a combination of existing controls and several candidate control measures.
- Additional emission reductions also appear to be necessary to meet the initial reasonable progress goal for regional haze in the northern Class I areas. (Note, a determination of reasonable progress is pending based on assessment of the four statutory factors.)

Three additional analyses were performed using the Base K/Round 4 emissions: (1) 4 km ozone modeling, (2) ozone and PM2.5 source apportionment, and (3) alternative modeling as part of a weight-of-evidence demonstration. These analyses are summarized in separate documents.

### Base Year Modeling Results

The purpose of the base year modeling is to evaluate model performance by comparing modeled and monitored concentrations. The results for ozone and PM2.5 are presented below.

**Ozone:** Spatial and time series plots are provided for a high ozone period in June 2002 (see Figures 1 and 2). These plots show that the model is doing a reasonable job of reproducing the magnitude, day-to-day (and hour-to-hour) variation, and spatial pattern of ozone concentrations. There is a tendency, however, to underestimate the magnitude of regional ozone levels.

In addition, time series plots using ozone precursor (VOC and NOx) concentrations were prepared using data from the PAMS sites in the Lake Michigan and Detroit areas (see Figure 3). The plots show reasonable agreement between modeled and monitored concentrations.

Standard model performance statistics were generated for the entire 12 km domain, and by day and by monitoring site. These results also indicate a tendency to underestimate ozone levels (e.g., normalized bias is about -10% for domainwide average).

<sup>1</sup>

Additional details about the modeling, including grid projections and domain, model inputs, and quality assurance, are provided in “Addendum Modeling Protocol: Technical Details”, Lake Michigan Air Directors Consortium, August 22, 2006

August 31, 2006

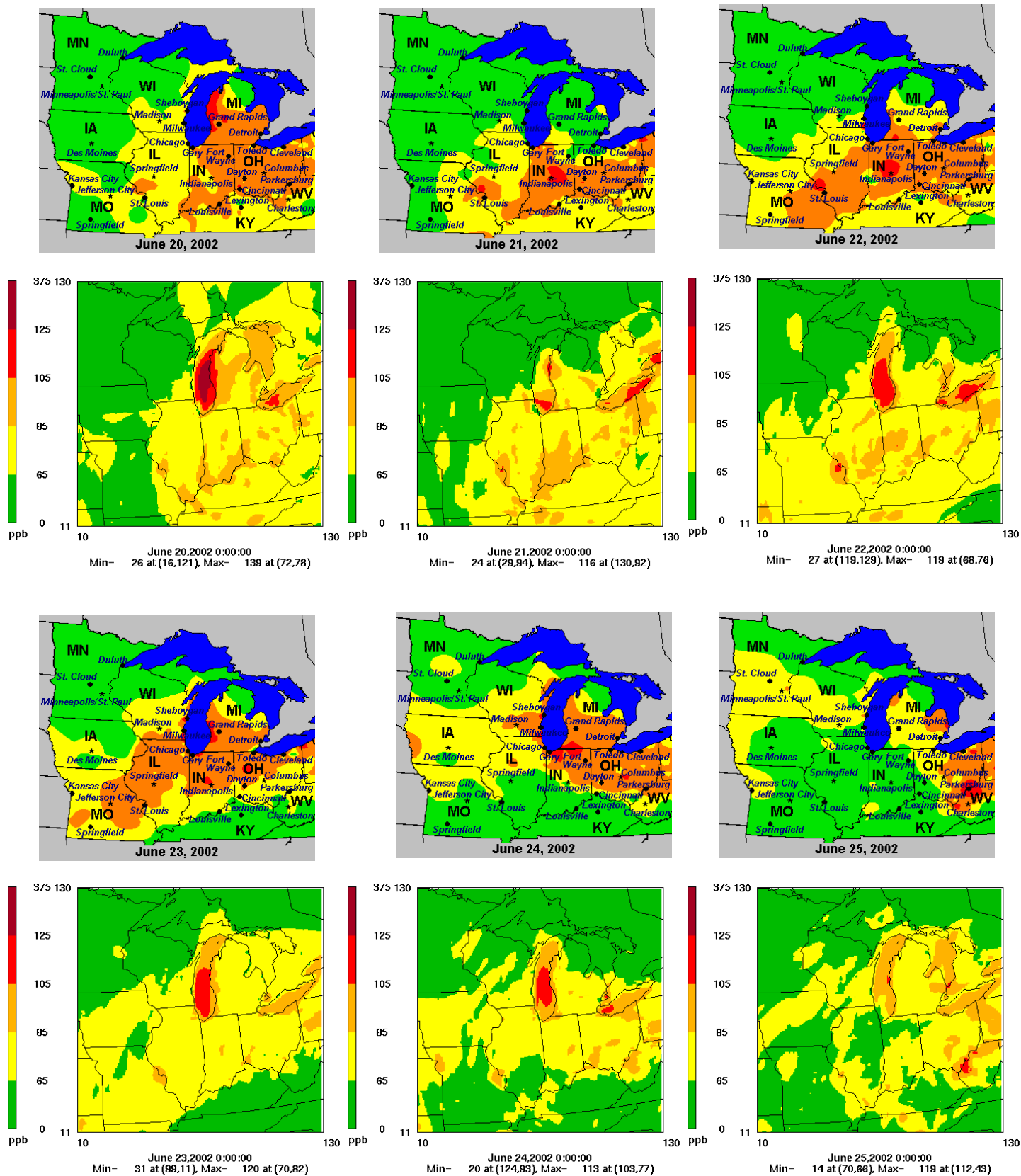


Figure 1. Monitored (top) v. Modeled(bottom) 8-Hour Ozone Concentrations: June 20 – 25, 2002

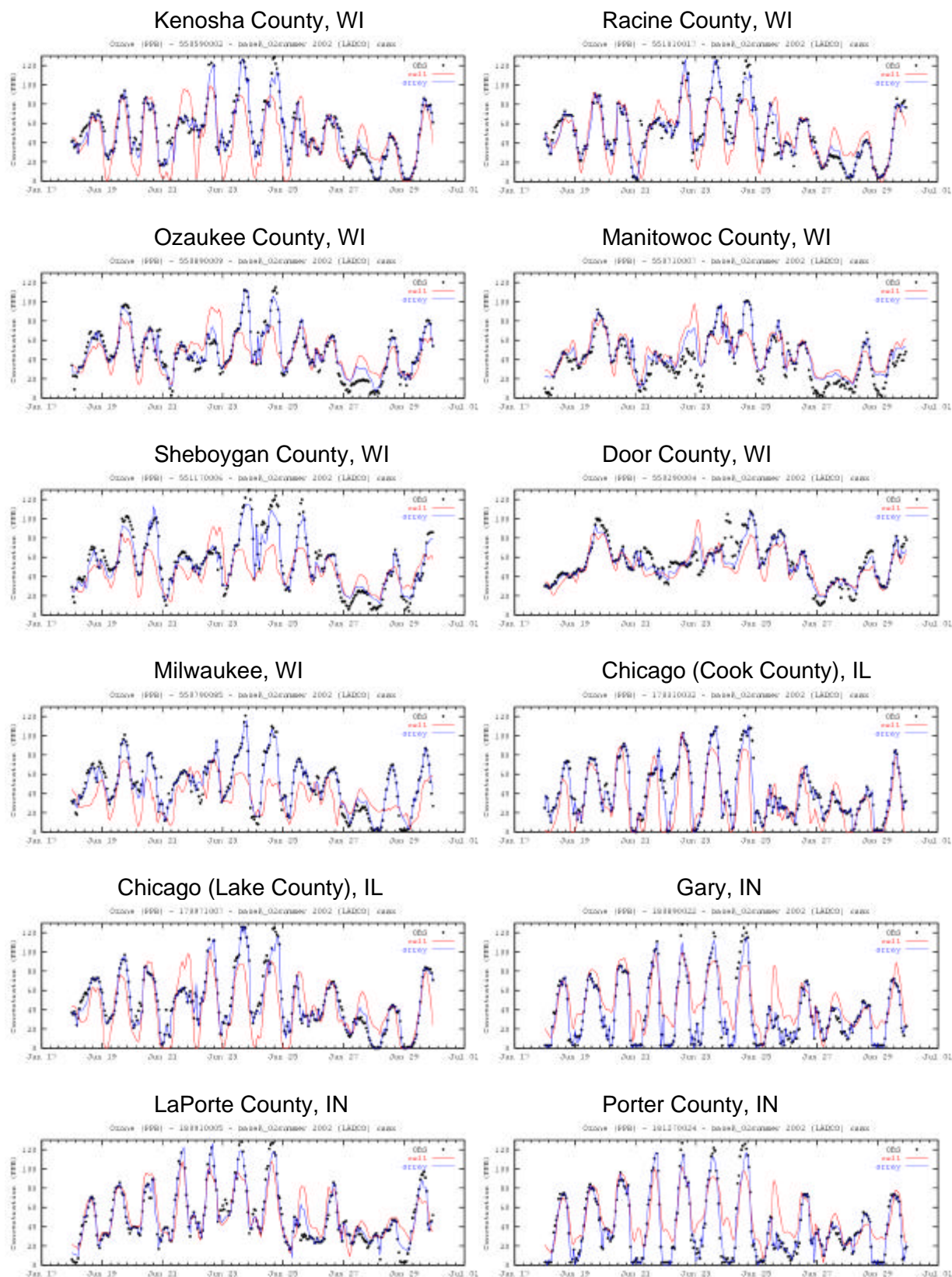


Figure 2. Monitored v. Modeled Hourly Ozone Concentrations: June 18 – 30, 2002



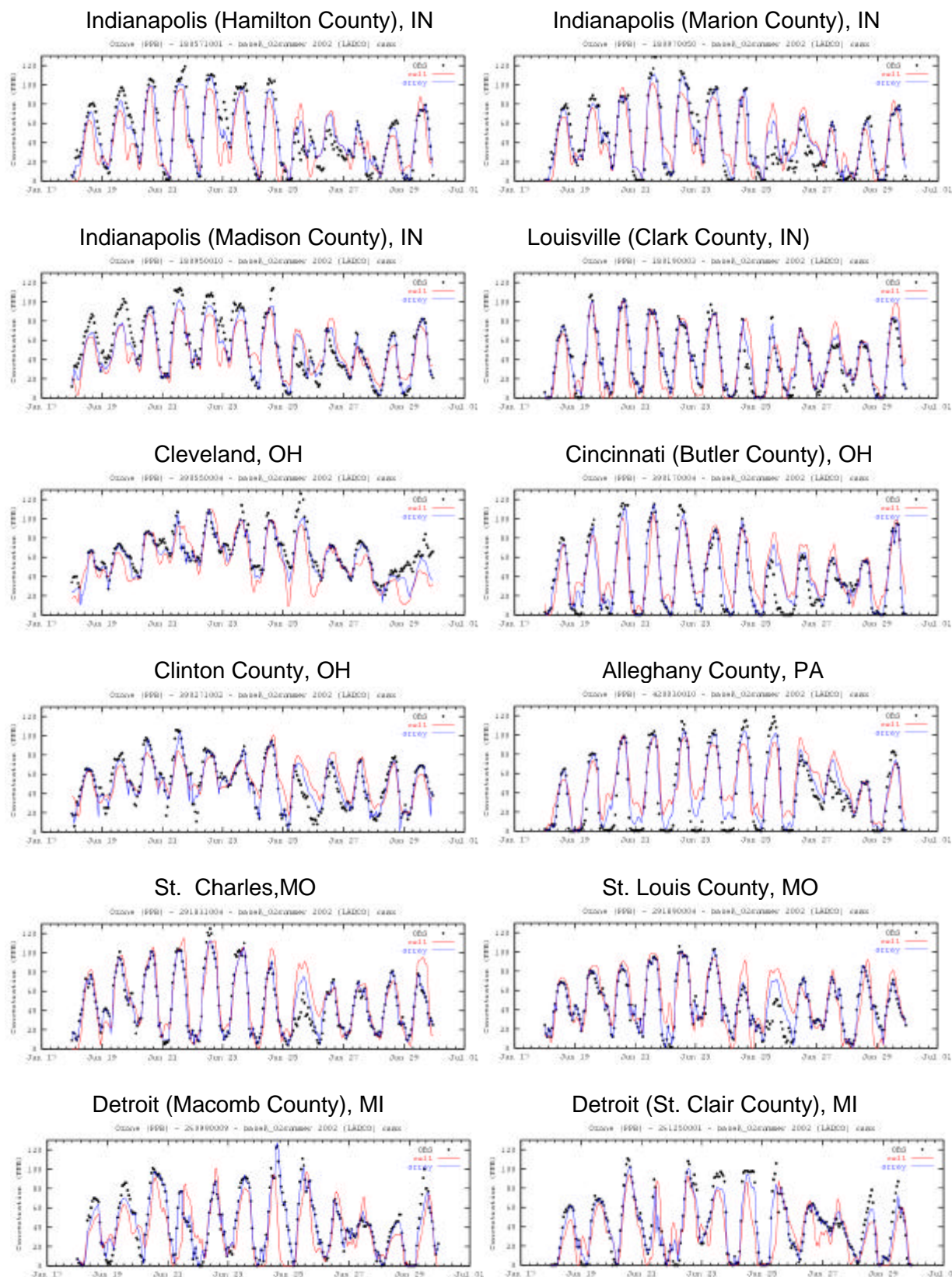
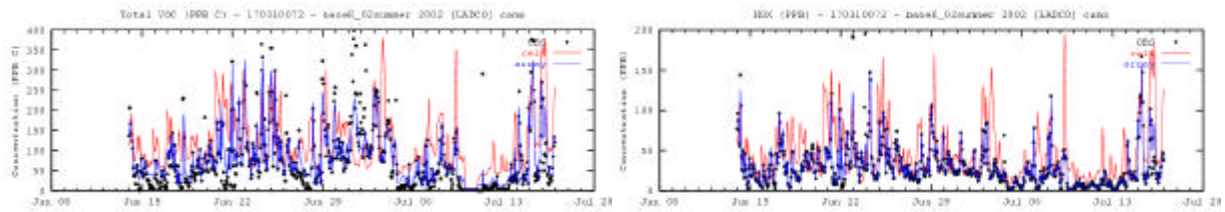


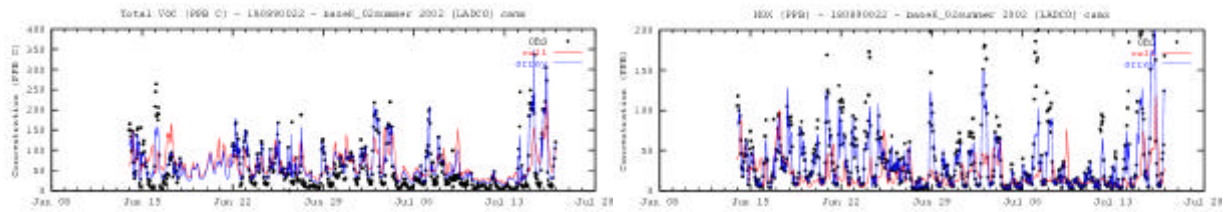
Figure 2. Monitored v. Modeled Hourly Ozone Concentrations: June 18 – 30, 2002 (continued)



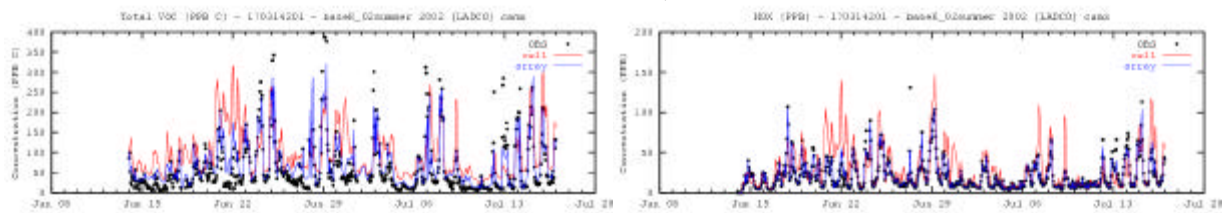
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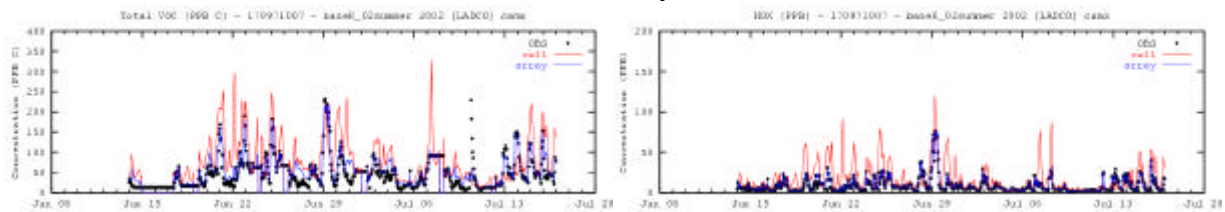
### Gary, IN



### Northbrook, IL



### Lake County, IL



### Detroit, MI

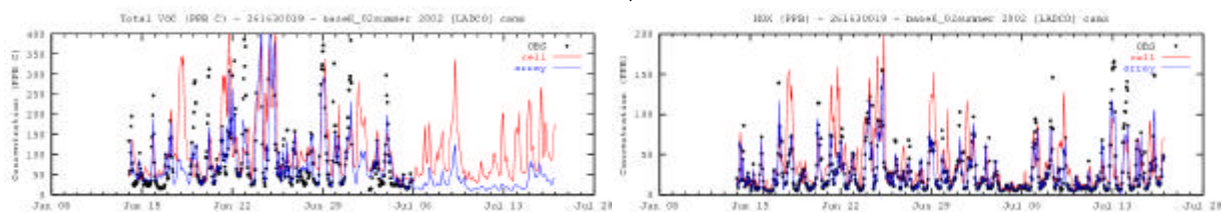


Figure 3. Monitored v. Modeled VOC (left side) and NOx (right side) Concentrations: June 18–30, 2002

*PM2.5*: Time series plots of the monthly average mean bias and gross error, and annual fractional bias and fractional error for Base K (and Base J) are shown in Figure 4. As can be seen, the model performance results for sulfates, elemental carbon, and soil for Base K are good, and are similar those for Base J. The Base K results for nitrates are much better those for Base J, although they still show a tendency to overestimate monitored values. The Base K results for organic carbon, however, are still poor, especially during the summer months, suggesting the need for more work on primary organic carbon emissions and model chemistry (secondary aerosol formation). (Note, work is underway to improve biogenic emissions and model treatment of secondary organic aerosols, but better understanding of primary organic carbon emissions from mobile sources is needed.)

Scatterplots of daily sulfate, nitrate, organic carbon, and elemental carbon concentrations for each month are provided in Figure 5. Time series plots of daily sulfate, nitrate, elemental carbon, and organic carbon concentrations for two locations (Chicago and Indianapolis) are presented in Figure 6. These results are consistent with the model performance statistics (i.e., good agreement for sulfates, reasonable agreement [albeit slightly high] for nitrates, and poor agreement [large underprediction] for organic carbon).

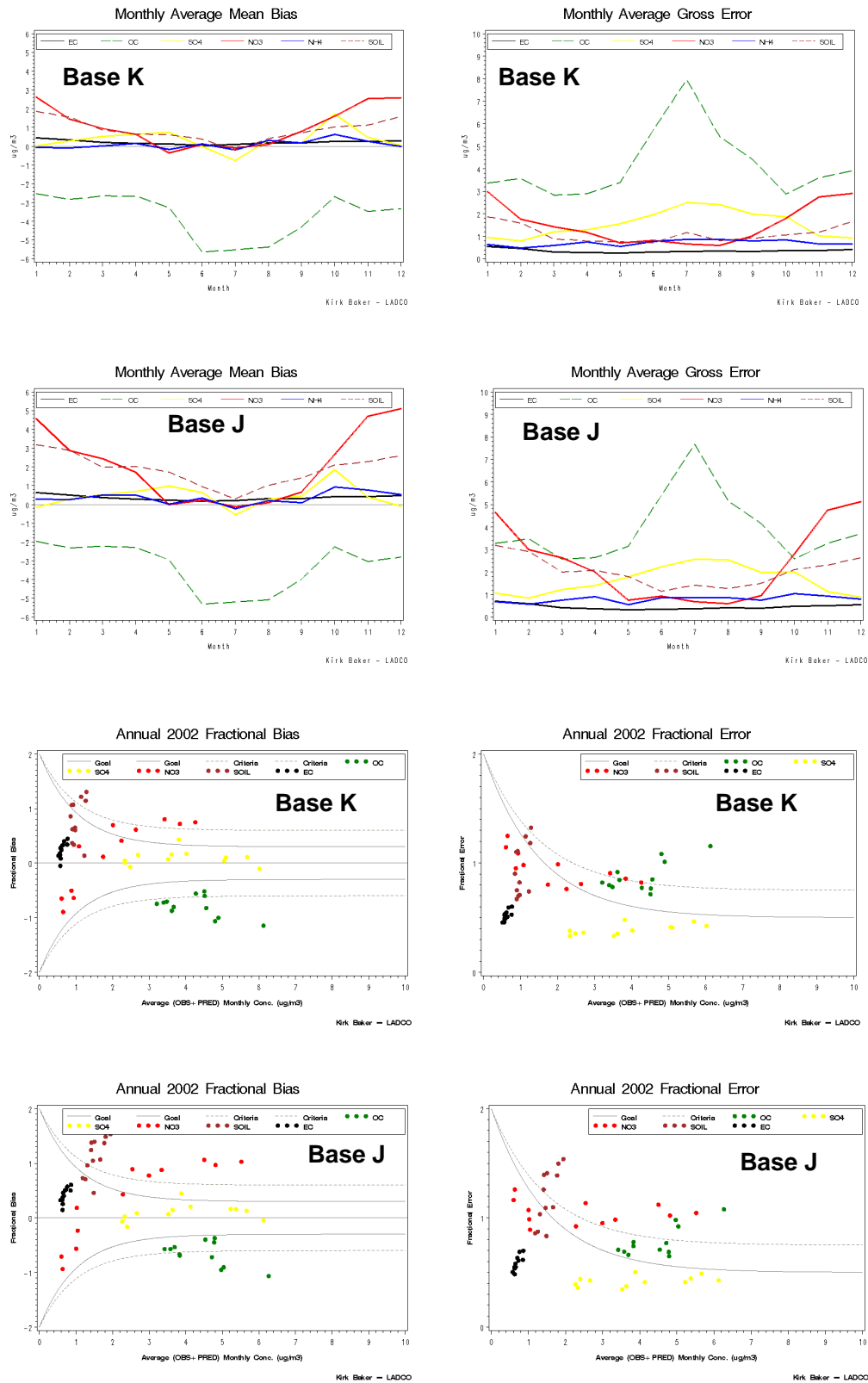


Figure 4. PM<sub>2.5</sub> Model Performance - Monthly Average Mean Bias and Gross Error, and Annual Fractional Bias and Gross Error for Base J and Base K

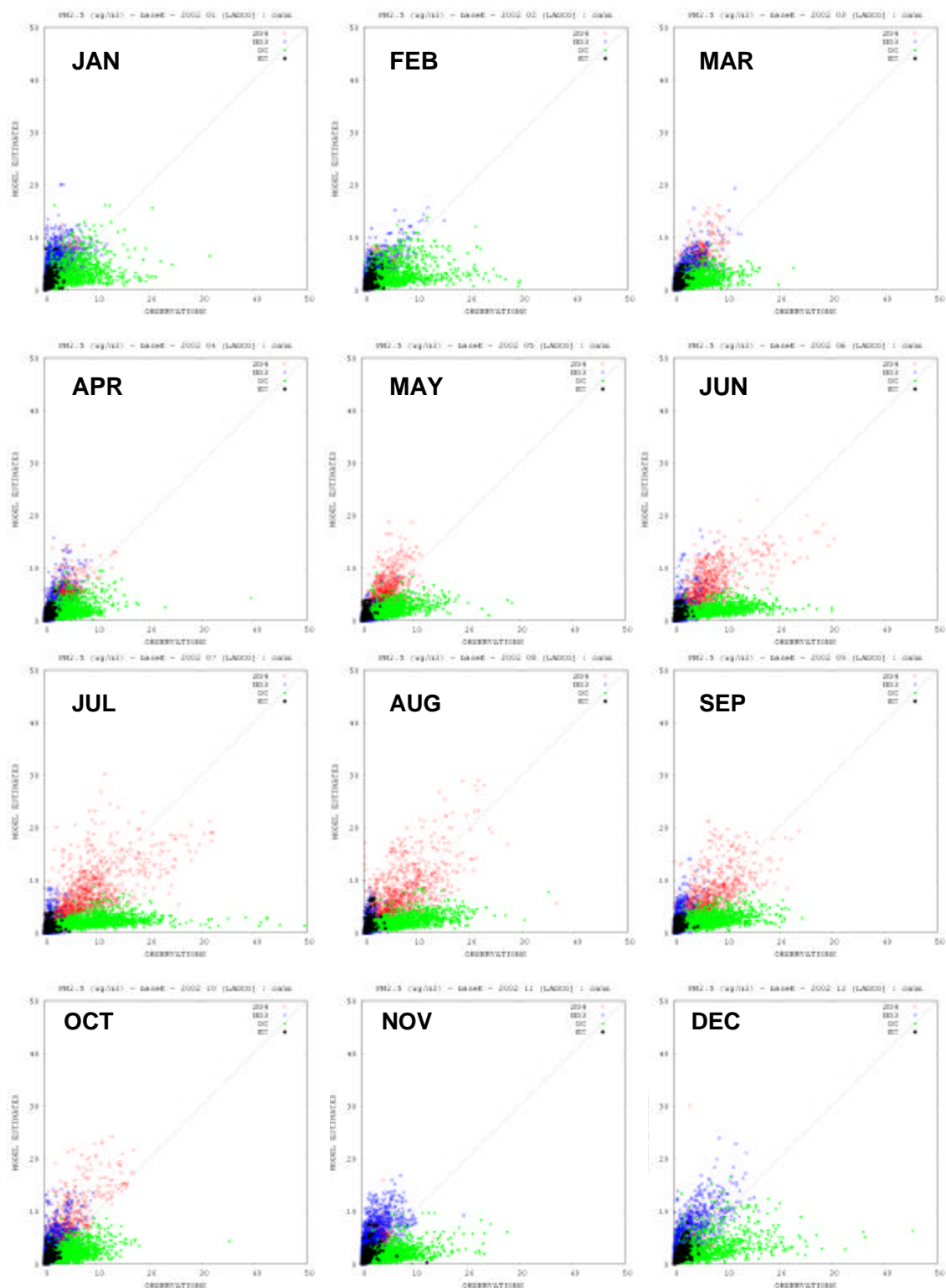


Figure 5. PM2.5 Model Performance – Monthly Monitored v. Modeled Concentrations by Species

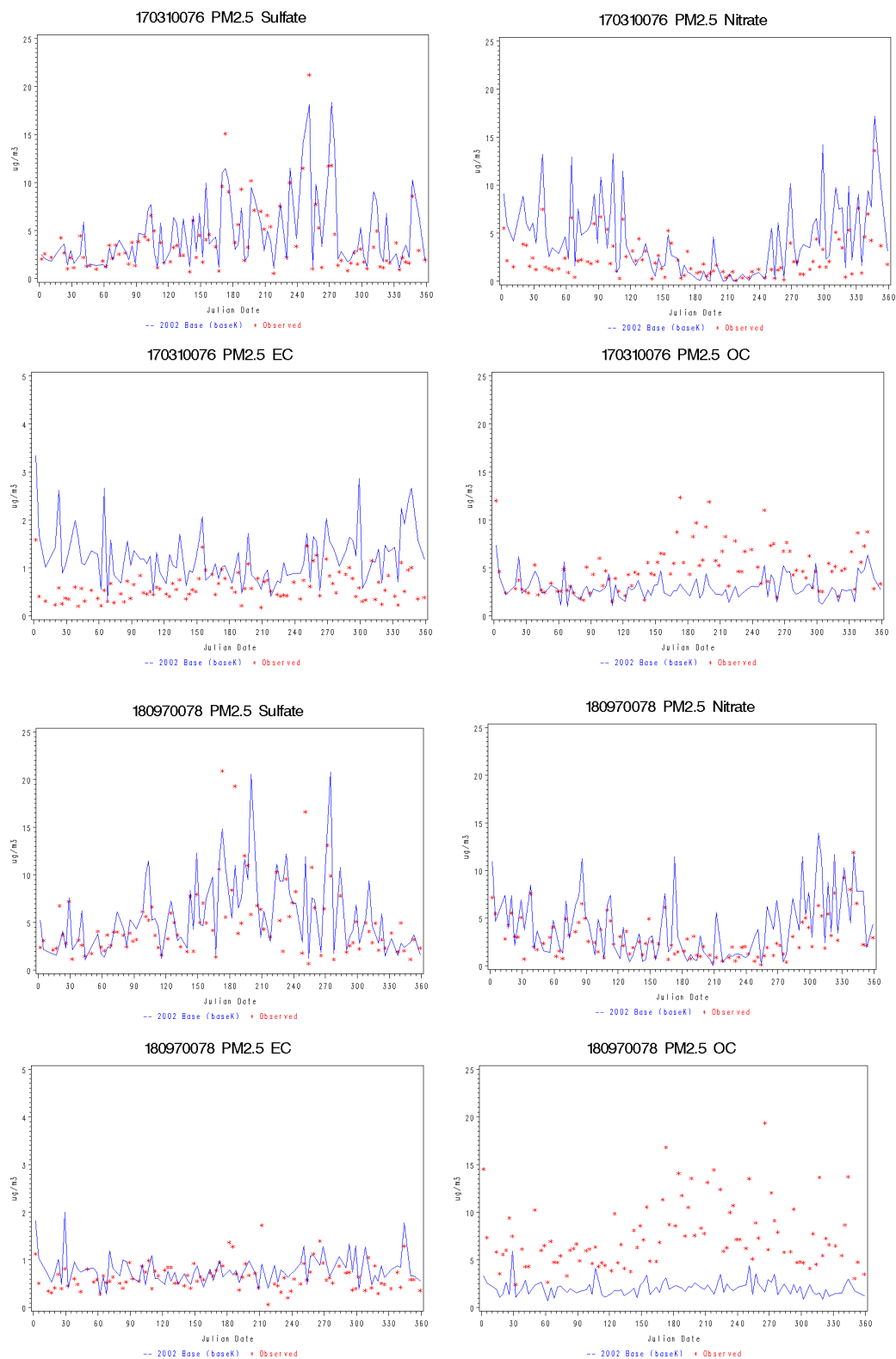


Figure 6. PM2.5 Model Performance – Time Series of Concentrations by Species

## Future Year Modeling Results

The purpose of the future year modeling is to assess the effectiveness of existing and possible additional control programs. The future year modeling scenarios are listed in Table 1, and the modeled ozone and PM<sub>2.5</sub> concentrations are provided in Table 2.<sup>2</sup>

Scenario 1: This scenario represents the future year “base” inventory (i.e., growth to the future year of interest and application of existing [“on the books”] controls). The following controls were included in this scenario:

### On-Highway Mobile Sources

- Tier II/Low sulfur fuel
- Inspection/Maintenance programs (nonattainment areas)
- Reformulated gasoline (nonattainment areas)

### Off-Highway Mobile Sources

- Federal control programs incorporated into NONROAD model (e.g., nonroad diesel rule), plus the evaporative Large Spark Ignition and Recreational Vehicle standards
- Heavy-duty diesel (2007) engine standard/Low sulfur fuel
- Federal railroad/locomotive standards
- Federal commercial marine vessel engine standards

### Power Plants

- Title IV (Phases I and II)
- NO<sub>x</sub> SIP Call
- Clean Air Interstate Rule
- Clean Air Mercury Rule

### Other Point Sources

- VOC 2-, 4-, 7-, and 10-year MACT standards
- Combustion turbine MACT
- Industrial boiler/process heater/RICE MACT

Four versions of Scenario 1 were considered:

1a reflects the full trading version of CAIR (based on IPM modeling – VISTASII\_PC1f run that was developed for VISTAS in 2005, which incorporates the EPA 219b fuel prices, RPO-directed NEEDS, regional and state environmental regulations, and run year updates)

1b reflects a restricted trading version of CAIR (based on IPM modeling – VISTASII\_PC3b run that was developed for VISTAS in 2005, which is similar to VISTASII\_PC1f with the addition of state-level emission caps for CAIR and CAMR)

1c reflects the full trading version of CAIR (based on IPM modeling) and BART for select non-EGUs

1d reflects the full trading version of CAIR (based on IPM modeling) with emissions scaled-back to match the state-level CAIR emission caps (note, unlike 1b, this scenario does not allow for banking and, consequently, results in lower emissions compared to 1b)

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<sup>2</sup> Another scenario (Scenario 6) was also modeled for 2012 (36 km annual PM<sub>2.5</sub> run and 12 km summer ozone run). This scenario reflects an initial set of possible state control measures. Given the cursory nature of this set of measures and the need to make several emissions inventory approximations, the results of this scenario are considered preliminary and are not included here.

**Table 1. Round 4 Strategy Modeling Runs**

Run	Description	2002	2008	2009	2012	2018
Base K	2002 baseyear emissions inventory	36,12				
Scenario 1	Existing (OTB) controls, plus CAIR					
	a. CAIR w/ full trading		12	36,12	36,12	36,12
	b. CAIR w/ restricted trading				36,12	
	c. CAIR w/ full trading and BART for non-EGUs					36
	d. EGU0 - CAIR w/ full trading scaled-back to state budgets			36,12	36,12	
Scenario 2	Scenario 1a plus EGU controls:					
	a. EGU2 for top 30 EGUs in 5-state region (based on Q/d)				36,12	
	b. EGU2 in 100 km radius of each residual NA area				36,12	
	c. EGU2 in 5-state region			36,12	36,12	36
	d. EGU2 in 12-state Midwest region				36,12	36
	e. EGU1 in 5-state region			36,12	36,12	
	f. EGU1-IPM in 5-state region				36,12	
	g. EGU2-IPM in 5-state region				36,12	
Scenario 3	a. Scenario 2 e plus "low" control level for non-EGU point, area, and mobile sources throughout 5-state region			36,12	36,12	
	<b>Non-EGU Point Sources</b>					
	* ICI Boilers - 40% SO <sub>2</sub> , 60% NO <sub>x</sub> reduction (ICI1)					
	* Glass manufacturing - 30% NO <sub>x</sub> reduction (GLASS1)					
	<b>Area Sources</b>					
	* Consumer products - OTC model rule (SOLV2A)					
	* AIM coatings - OTC model rule (SOLV1A)					
	* Portable fuel containers - OTC model rule (SOLV3A)					
	* Auto refinishing - extend IL,IN,WI RACT rules (SOLV4A)					
	* Ind. surface coating - more stringent RACT (SOLV5A)					
	* Degreasing – more stringent RACT (SOLV6A)					
	* Gas. Dispensing - enhanced vapor recovery (SOLV7A)					
	<b>Mobile Sources</b>					
	* HDDV – reflashing and voluntary measures <\$5,000/T					
	* Construction Equipment - voluntary measures < \$5,000/T					
	* Low RVP fuel (IN, MI, OH counties)					
	b. Scenario 2 c plus "high" control level for non-EGU point, area, and mobile sources throughout 5-state region			36,12	36,12	
	<b>Non-EGU Point Sources</b>					
	* ICI Boilers - 90% SO <sub>2</sub> , 80% NO <sub>x</sub> reduction (ICI3)					
	* Cement kilns – 90% SO <sub>2</sub> , 50% NO <sub>x</sub> reduction (KILN1)					
	* Asphalt plants – 25% NO <sub>x</sub> reduction					
	* Glass manufacturing - 75% NO <sub>x</sub> reduction (GLASS2)					
	<b>Area Sources</b>					
	* Consumer products - SCAQMD rule (SOLV2B)					
	* AIM coatings - CARB 2003 rule (SOLV1BA)					



		* Portable fuel cont, - Accelerated phase in (SOLV3B)					
		* Auto refinishing - SCAQMD rule (SOLV4B)					
		* Ind. surface coating - more stringent RACT (SOLV5A)					
		* Degreasing - more stringent RACT (SOLV6A)					
		* Gas. dispensing - enhanced vapor recovery (SOLV7A)					
		* Asphalt paving applications - low VOC formulations					
		<b>Mobile Sources</b>					
		* HDDV - refashing and voluntary measures <\$10,000/T					
		* Const. Equipment - voluntary measures < \$10,000/T					
		* Agricultural Equipment - voluntary measures < \$10,000/T					
		* Low RVP fuel (IN, MI, OH counties)					
Scenario 4		<b>Non-EGU Point Sources</b>				36,12	
		* ICI Boilers - 40% SO <sub>2</sub> , 60% NO <sub>x</sub> reduction (ICI1)					
		<b>Area Sources</b>					
		* Consumer products - OTC model rule (SOLV2A)					
		* AIM coatings - OTC model rule (SOLV1A)					
		* Portable fuel containers - OTC model rule (SOLV3A)					
		<b>Mobile Sources</b>					
		* HDDV – chip refashing					
Scenario 5		EGU Point Sources				36,12	
		* <b>EGU1 for SO<sub>2</sub>, EGU2 for NO<sub>x</sub></b>					
		<b>Non-EGU Point Sources</b>					
		* ICI Boilers - 40% SO <sub>2</sub> , 60% NO <sub>x</sub> reduction (ICI1)					
		<b>Area Sources</b>					
		* Consumer products - OTC model rule (SOLV2A)					
		* AIM coatings - OTC model rule (SOLV1A)					
		* Portable fuel containers - OTC model rule (SOLV3A)					
		<b>Mobile Sources</b>					
		* HDDV – refashing and voluntary measures <\$5,000/T					
		* Construction Equipment - voluntary measures < \$5,000/T					
		* Low RVP fuel (IN, MI, OH counties)					

PM <sub>2.5</sub> Design Values (for sites w/ obs. value > 15.5 ug/m3)			2008		2009							2012												2018					
		Obs.	CAIR-full trading		CAIR-full trading	CAIR-budgets	EGU2-5 state	EGU1-5 state	All - min	All - max		CAIR-full trading	CAIR-restrict.	CAIR-budgets	EGU2-top 30	EGU2-100km	EGU2-5 state	EGU2-12 state	EGU1-5 state	EGU1(5)-IPM	EGU2(5)-IPM	Comm. Package	P.Team Option	All - min	All - max	CAIR-full trading	plus BART	EGU2-5 state	EGU2-12 state
			1a		1a	1d	2c	2e	3a	3b		1a	1b	1d	2a	2b	2c	2d	2e	2f	2g	4	5	3a	3b	1a	1c	2c	2d
Chicago	170310014	15.6			14.4	14.1	14.0	14.2	14.1	13.7		14.3	14.2	14.0	13.9	13.9	13.6	13.2	13.7	14.0	13.8	14.2	13.6	13.6	13.3	14.1	14.0	13.4	13.1
	170310022	15.9			14.8	14.5	14.3	14.5	14.4	14.1		14.6	14.6	14.4	14.2	14.2	13.9	13.6	14.0	14.3	14.1	14.5	13.9	13.9	13.7	14.4	14.3	13.7	13.4
	170310052	17.1			15.8	15.5	15.3	15.6	15.4	15.1		15.5	15.5	15.3	15.2	15.1	14.8	14.4	14.9	15.2	15.0	15.5	14.8	14.8	14.5	15.0	14.9	14.2	13.9
	170310057	15.6			14.5	14.2	14.0	14.2	14.1	13.8		14.3	14.3	14.1	14.0	13.9	13.6	13.3	13.7	14.0	13.8	14.2	13.6	13.6	13.4	14.1	14.0	13.5	13.1
	170310076	15.6			14.5	14.2	14.0	14.2	14.1	13.8		14.3	14.3	14.1	13.9	13.9	13.6	13.3	13.7	14.0	13.8	14.2	13.6	13.6	13.4	14.1	14.0	13.4	13.1
	170312001	15.6			14.5	14.2	14.0	14.2	14.1	13.8		14.3	14.3	14.1	14.0	13.9	13.6	13.3	13.7	14.0	13.8	14.2	13.6	13.6	13.4	14.1	14.0	13.5	13.1
	170313301	16.0			14.8	14.5	14.3	14.6	14.4	14.1		14.6	14.6	14.4	14.3	14.3	13.9	13.6	14.1	14.3	14.1	14.6	13.9	14.0	13.7	14.4	14.4	13.8	13.4
	170316005	16.4			15.3	15.0	14.8	15.0	14.9	14.5		15.1	15.1	14.9	14.7	14.4	14.0	14.5	14.8	14.6	14.6	15.0	14.4	14.4	14.2	14.9	14.8	14.2	13.9
Granite City/St. Louis	171191007	17.3			16.0	15.7	15.5	15.7	15.7	15.4		15.8	15.7	15.6	15.5	15.5	15.2	14.4	15.3	15.6	15.5	15.7	15.2	15.3	15.1	15.5	15.4	15.0	14.2
	171630010	16.2			14.9	14.7	14.5	14.7	14.7	14.4		14.7	14.7	14.6	14.5	14.5	14.2	13.4	14.3	14.5	14.4	14.7	14.2	14.2	14.1	14.5	14.4	14.0	13.2
Louisville	180190005	17.2			15.5	15.1	14.8	15.0	14.9	14.6		15.0	14.8	14.7	14.4	14.6	14.1	13.2	14.2	14.7	14.6	14.9	14.1	14.1	13.9	14.4	14.3	13.6	13.0
Jasper	180372001	15.5			13.8	13.5	13.2	13.4	13.4	13.0		13.5	13.3	13.2	13.0	13.2	12.6	11.8	12.7	13.2	13.0	13.5	12.6	12.7	12.4	13.0	13.0	12.2	11.6
Indianapolis	180970078	16.2			14.5	14.0	13.7	14.0	13.9	13.5		14.2	14.0	13.9	13.7	13.8	13.1	12.5	13.3	13.7	13.5	14.1	13.1	13.2	12.8	13.7	13.6	12.8	12.3
	180970083	16.6			14.8	14.4	14.1	14.3	14.3	13.8		14.5	14.3	14.2	14.1	14.1	13.4	12.9	13.6	14.1	13.8	14.5	13.5	13.5	13.2	14.0	14.0	13.1	12.6
Detroit	261630001	15.9			14.5	14.0	13.7	14.0	13.9	13.4		14.1	14.0	13.6	13.4	13.3	12.9	12.6	13.1	13.5	13.2	14.0	12.9	13.0	12.7	13.3	13.2	12.2	11.9
	261630015	17.3			15.8	15.2	14.9	15.3	15.1	14.7		15.3	15.3	14.8	14.6	14.6	14.1	13.7	14.3	14.7	14.5	15.2	14.1	14.2	13.9	14.4	14.4	13.4	13.0
	261630016	15.5			14.1	13.7	13.4	13.7	13.6	13.1		13.7	13.7	13.3	13.1	13.0	12.6	12.2	12.8	13.2	13.0	13.7	12.7	12.7	12.4	13.0	12.9	12.0	11.7
	261630033	19.3			17.7	17.1	16.8	17.2	17.0	16.6		17.1	17.1	16.7	16.4	16.4	16.0	15.6	16.1	16.5	16.3	17.1	16.0	16.0	15.7	16.1	16.0	15.0	14.7
	261630036	16.6			15.1	14.6	14.3	14.6	14.5	14.0		14.7	14.7	14.2	14.0	13.9	13.5	13.1	13.7	14.1	13.8	14.6	13.5	13.6	13.2	13.9	13.8	12.8	12.5
Cleveland	390350013	18.1			15.8	15.4	15.0	15.3	15.1	14.6		15.2	15.3	14.9	14.4	14.4	14.0	13.5	14.2	14.7	14.6	15.1	14.0	14.1	13.7	14.2	14.2	13.2	12.8
	390350027	16.5			14.4	13.9	13.5	13.8	13.7	13.2		13.8	13.9	13.5	13.1	13.0	12.6	12.2	12.8	13.3	13.2	13.7	12.6	12.7	12.3	12.9	12.8	11.9	11.5
	390350038	18.4			16.1	15.6	15.2	15.5	15.3	14.8		15.4	15.5	15.1	14.7	14.6	14.3	13.8	14.4	15.0	14.8	15.3	14.3	14.3	13.9	14.4	14.4	13.4	12.1
	390350044	16.7			14.6	14.2	13.7	14.0	13.9	13.4		14.0	14.1	13.7	13.3	13.2	12.9	12.4	13.0	13.6	13.4	13.9	12.9	12.9	12.5	13.1	13.0	12.1	11.8
	390350060	17.5			15.3	14.8	14.4	14.7	14.6	14.1		14.7	14.8	14.4	13.9	13.9	13.5	13.0	13.7	14.2	14.0	14.6	13.5	13.5	13.2	13.7	13.7	12.7	12.4
	390350065	16.1			14.1	13.6	13.2	13.5	13.4	12.9		13.5	13.6	13.2	12.8	12.7	12.3	11.9	12.5	13.0	12.9	13.4	12.3	12.4	12.0	12.6	12.6	11.6	11.3
Akron	391530017	16.4			14.4	14.0	13.6	13.8	13.7	13.2		13.8	13.8	13.5	13.2	13.1	12.8	12.3	12.9	13.4	13.2	13.7	12.8	12.8	12.4	12.9	12.9	12.0	11.7
	391530023	15.6			13.6	13.2	12.8	13.1	12.9	12.5		13.0	13.1	12.7	12.4	12.4	12.0	11.5	12.1	12.6	12.5	12.9	12.0	12.0	11.7	12.2	12.2	11.3	11.0
Canton	391510017	17.3			15.0	14.6	14.2	14.4	14.3	13.9		14.3	14.4	14.1	13.8	13.7	13.3	12.8	13.5	14.1	13.9	14.3	13.4	13.4	13.1	13.6	13.5	12.7	12.4
	391510020	15.7			13.6	13.2	12.8	13.0	12.9	12.5		13.0	13.0	12.7	12.4	12.4	12.0	11.5	12.1	12.7	12.5	12.9	12.0	12.0	11.7	12.2	12.2	11.4	11.0
Columbus	390490024	16.6			14.6	14.2	13.8	14.1	13.9	13.6		14.0	14.0	13.7	13.4	13.4	13.0	12.4	13.1	13.6	13.5	13.9	13.0	13.0	12.7	13.0	13.0	12.2	11.8
	390490025	16.0			14.1	13.7	13.3	13.6	13.4	13.0		13.5	13.5	13.2	12.9	12.9	12.5	11.9	12.6	13.1	13.0	13.4	12.5	12.5	12.2	12.5	12.5	11.7	11.3
	390490081	16.0			14.0	13.6	13.2	13.5	13.4	13.0		13.4	13.4	13.1	12.8	12.8	12.4	11.9	12.6	13.1	12.9	13.3	12.4	12.5	12.2	12.5	12.4	11.7	11.3
Cincinnati	390170003	16.1			14.2	13.8	13.4	13.7	13.5	13.0		13.7	13.6	13.4	13.1	13.1	12.6	11.9	12.8	13.3	13.1	13.6	12.6	12.6	12.2	13.1	13.0	12.2	11.7
	390170016	15.5			13.5	13.2	12.7	12.9	12.8	12.4		12.9	12.8	12.6	12.2	12.3	11.9	11.2	12.0	12.5	12.4	12.8	11.9	11.9	11.6	12.2	12.1	11.3	10.8
	390610014	17.7			15.5	15.1	14.6	14.9	14.7	14.2		14.8	14.7	14.5	14.1	14.2	13.7	13.0	13.8	14.4	14.2	14.7	13.7	13.7	13.4	14.0	13.9	13.0	12.5
	390610040	15.6			13.6	13.2	12.7	13.0	12.9	12.4		13.0	12.9	12.7	12.3	12.4	11.9	11.2	12.1	12.6	12.5	12.9	11.9	12.0	11.6	12.3	12.2	11.4	10.9
	390610042	16.8			14.6	14.2	13.7	14.0	13.9	13.4		14.0	13.9	13.7	13.3	13.3	12.8	12.1	13.0	13.5	13.4	13.9	12.9	12.9	12.5	13.2	13.1	12.2	11.7
	390610043	15.5			13.6	13.2	12.7	13.0	12.9	12.4		13.0	12.9	12.7	12.3	12.4	11.9	11.2	12.1	12.6	12.4	12.9	11.9	11.9	11.6	12.2	12.2	11.3	10.9
	390617001	16.3			14.2	13.8	13.3	13.6	13.5	13.0		13.6	13.5	13.3	12.9	13.0	12.5	11.8	12.7	13.2	13.0	13.5	12.5	12.5	12.2	12.8	12.7	11.9	11.4
	390618001	17.3			15.2	14.8	14.3	14.6	14.5	14.0		14.6	14.5	14.3	13.9	13.9	13.5	12.8	13.6	14.1	14.0	14.5	13.5	13.5	13.2	13.8	13.7	12.9	12.3
Dayton	391130032	15.5			13.7	13.3	12.8	13.1	13.0	12.5		13.2	13.3	12.9	12.5	12.5	12.1	11.5	12.2	12.7	12.6	13.1	12.1	12.1	11.7	12.3	12.3	11.4	11.0
Steubenville	390810016	18.3			16.3	16.1	15.7	15.9	15.8	15.6		15.9	16.1	15.7	15.5	15.5	15.2	14.7	15.3	15.9	15.8	15.8	15.2	15.3	15.1	16.2	16.2	15.6	15.3
	390811001	17.5			15.5	15.2	14.8	15.0	15.0	14.7		15.0	15.2	14.8	14.6	14.7	14.3	13.9	14.5	15.0	14.9	15.0	14.4	14.4	14.2	15.3	15.2	14.7	14.4
Huntington	390870010	15.7			14.2	14.0	1																						



The attainment test was applied consistent with USEPA's ozone and draft PM<sub>2.5</sub> modeling guidance. The "base" year design value was calculated as the weighted average of the design values for three 3-year periods (2000-2002, 2001-2003, and 2002-2004). The relative reduction factors were calculated using the peak 3x3 grid cell around the monitor and, for ozone, assuming a threshold of 85 ppb.<sup>3</sup>

The modeling results for Scenario 1 are provided in Table 2, and Figures 7 and 8. Several key findings should be noted

- 2008: This year was modeled because it represents the planning year for basic ozone nonattainment areas (attainment date of 2009). The modeling shows that two basic nonattainment areas (Cincinnati and Indianapolis) are close, but still slightly above the standard.
- 2009: This year was modeled because it represents the planning year for moderate ozone and PM<sub>2.5</sub> nonattainment areas (attainment date of 2010). The modeling shows existing control programs will improve air quality for ozone and PM<sub>2.5</sub>, but will not be enough to provide for attainment everywhere.
- 2012: This year was modeled to assess the effect of additional emission reductions from existing control programs. The modeling shows that these control programs will further improve air quality for ozone and PM<sub>2.5</sub>, but will also not be enough to provide for attainment everywhere.
- 2018: This year was modeled to assess the effect of additional emission reductions from existing control programs (e.g., full implementation of CAIR). The modeling shows that almost all sites are expected to attain for ozone, but several sites are still above the standard for PM<sub>2.5</sub>.

The number of monitors with design values above the standard are as follows:

State	Ozone			PM2.5		
	2002	2009	2012	2002	2009	2012
IL	3	0	0	11	3	3
IN	22	2	2	10	1	1
MI	15	1	0	6	3	2
OH	40	1	1	31	7	4
WI	<u>13</u>	<u>4</u>	<u>3</u>	<u>---</u>	<u>---</u>	<u>---</u>
	93	8	6	58	14	10

<sup>3</sup> Alternative modeling, which was conducted as part of a weight-of-evidence demonstration, used different assumptions for calculating the base year design value and the relative reduction factors.

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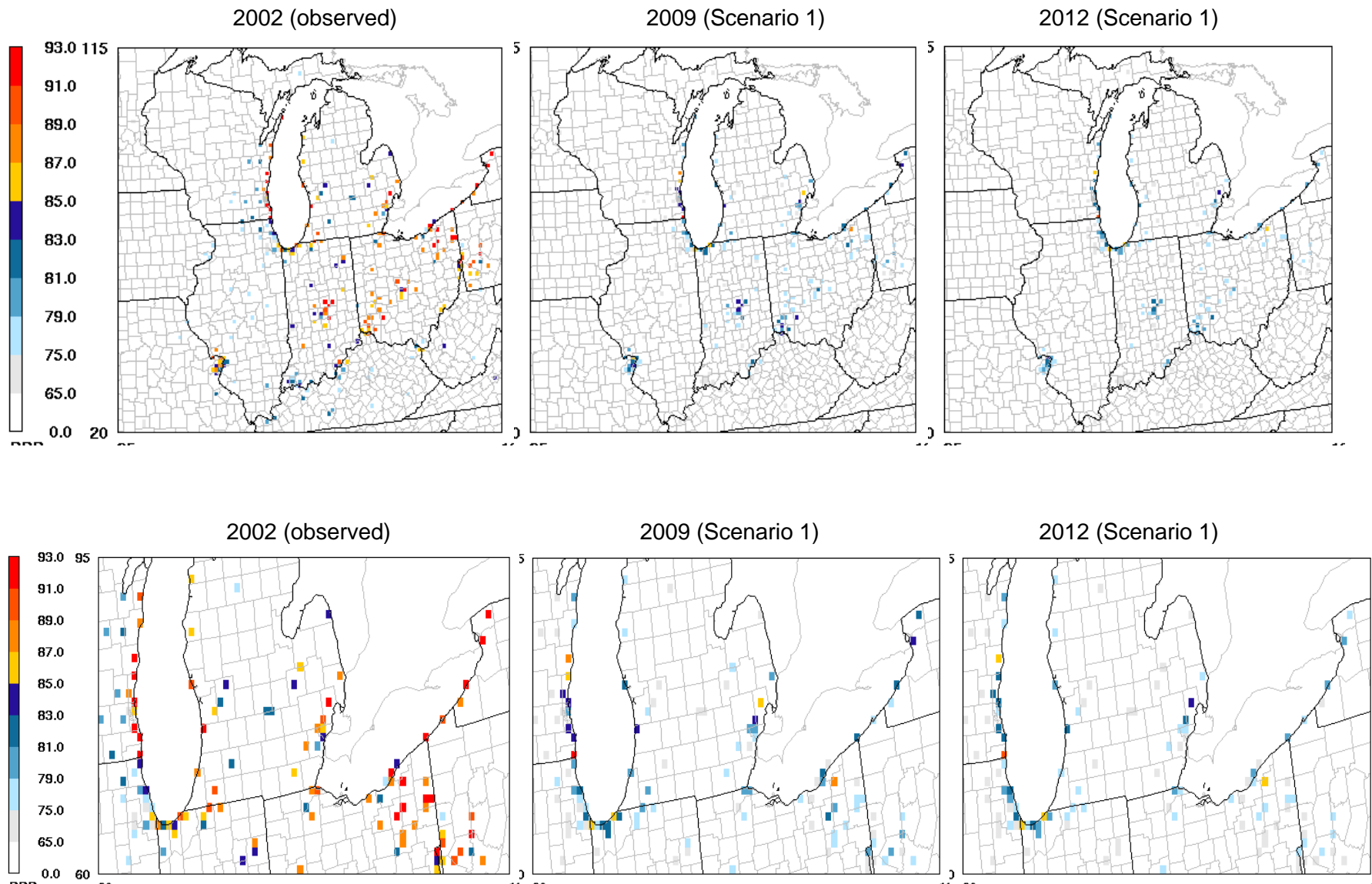


Figure 7. Observed base year and projected future year design values for ozone

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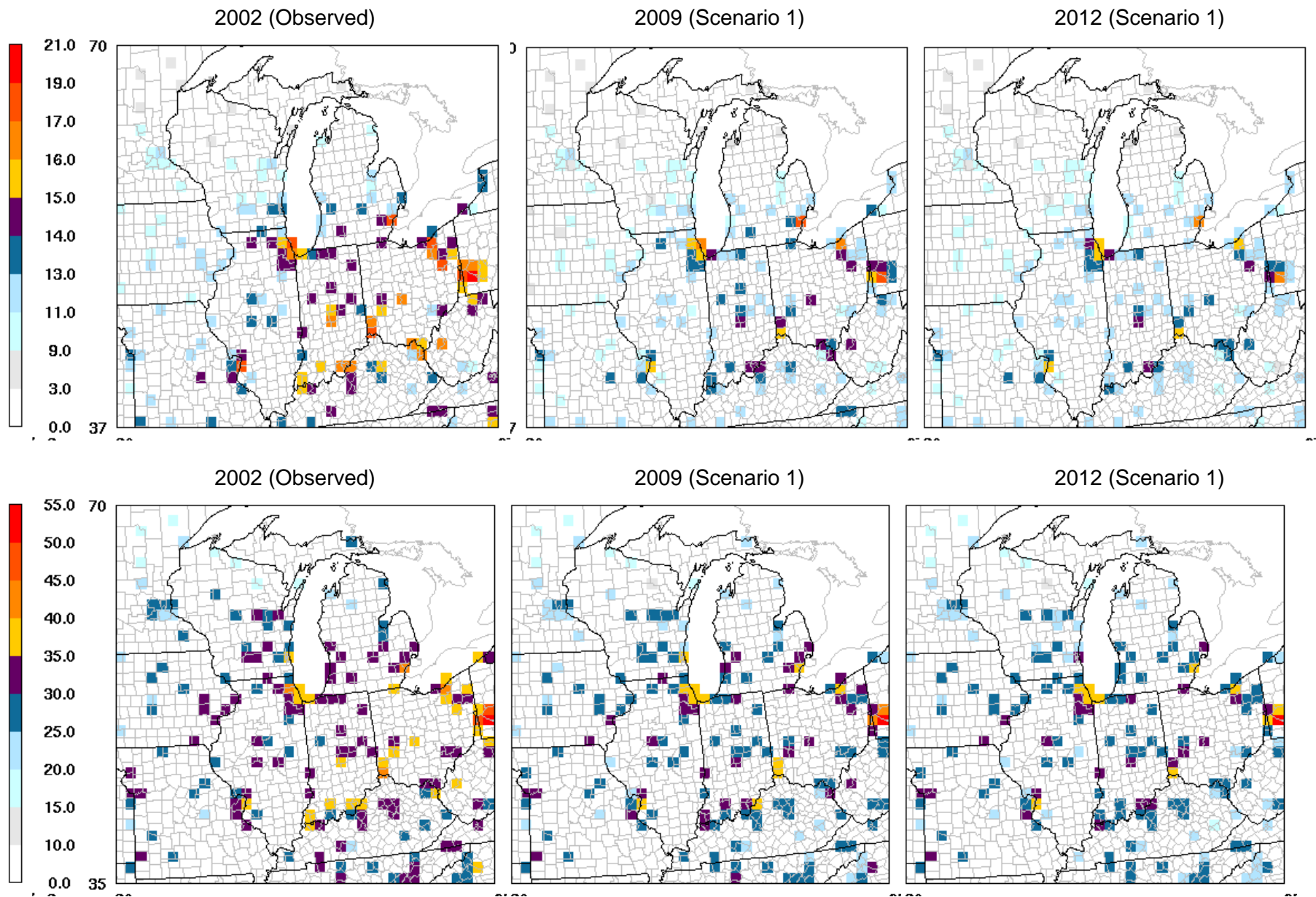


Figure 8. Observed base year and projected future year design values for  $PM_{2.5}$  - annual (top) and 24-hour (bottom)

In summary, the residual nonattainment areas include the Lake Michigan area and Cleveland for ozone, and Chicago, Granite City, Detroit, Cincinnati, Cleveland, Louisville, Steubenville, and Portsmouth for PM<sub>2.5</sub> (see Figures 9a and 9b).

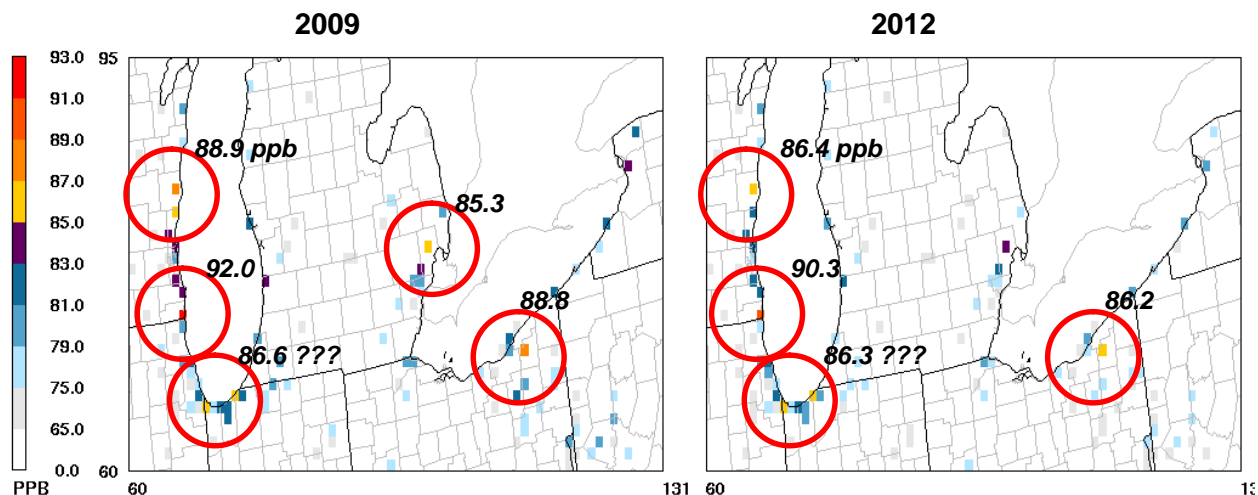


Figure 9a. Residual Nonattainment Areas for Ozone

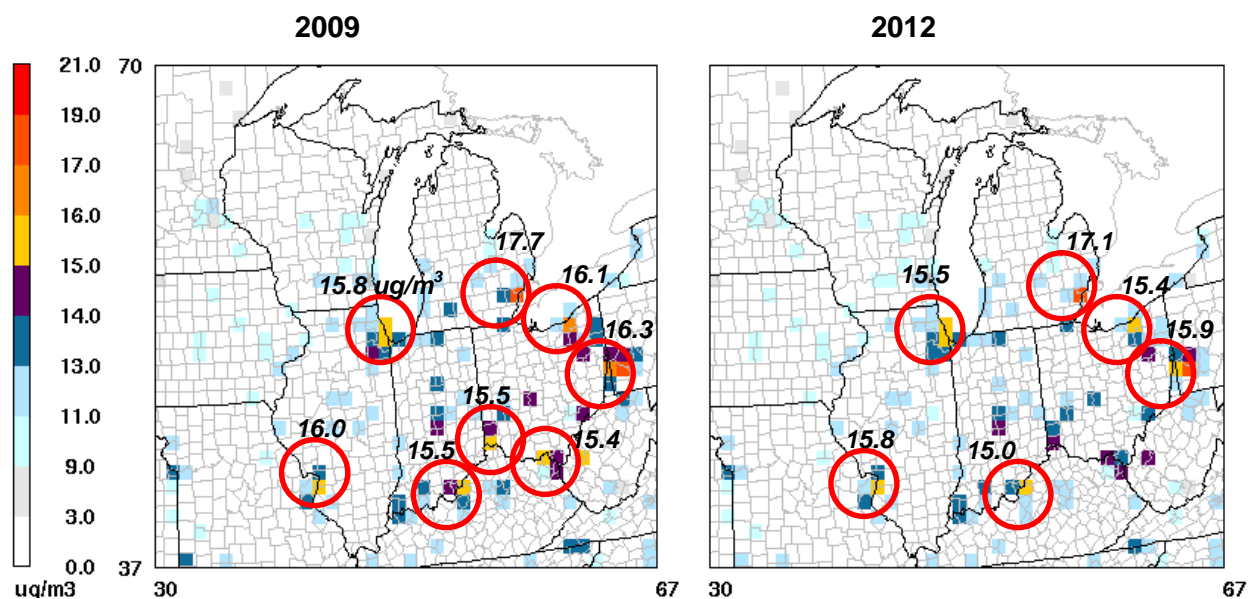


Figure 9b. Residual Nonattainment Areas for PM<sub>2.5</sub>

The 2009 and 2012 modeled ozone and PM<sub>2.5</sub> design values are shown for several key monitors in Figure 10. Also included in the figure are the modeled design values from USEPA's final CAIR modeling ("Technical Support Document for the Final Clean Air Interstate Rule, Air Quality Modeling", March 2005). As can be seen, the LADCO and USEPA results are generally consistent.



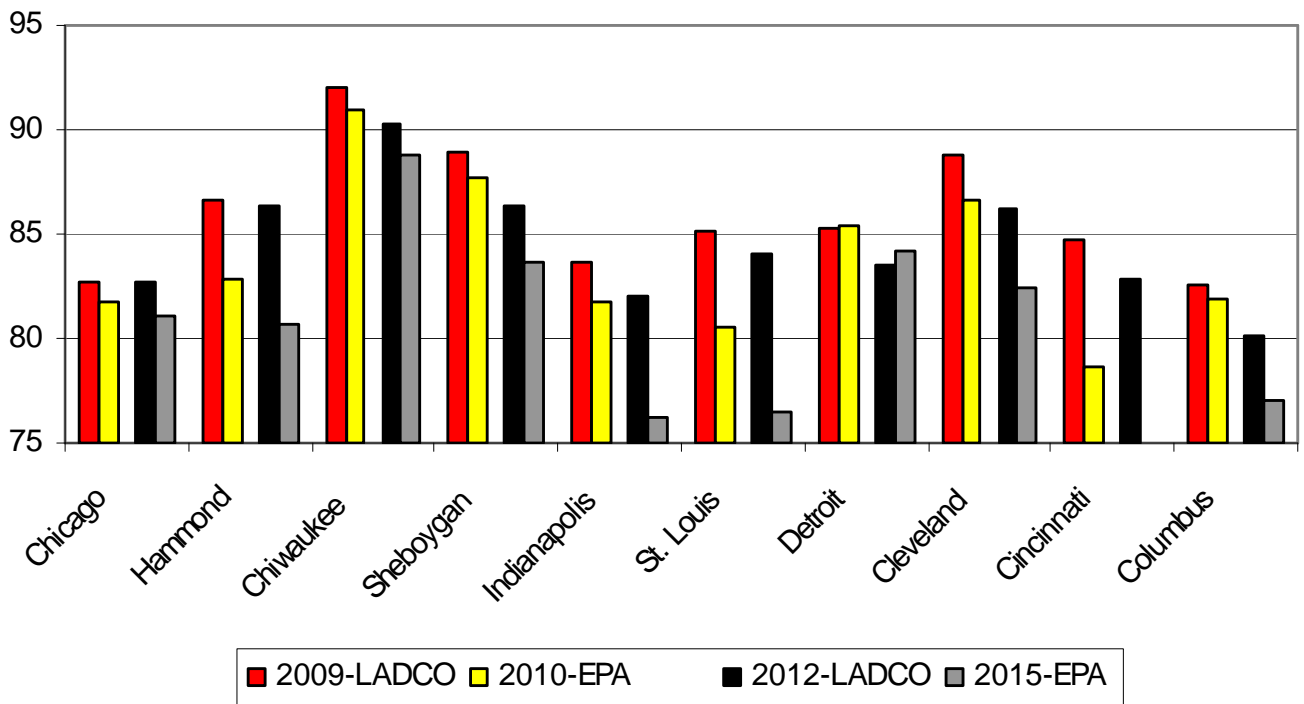


Figure 10a. LADCO v. EPA Modeling Results for Existing Control Measures (Ozone)

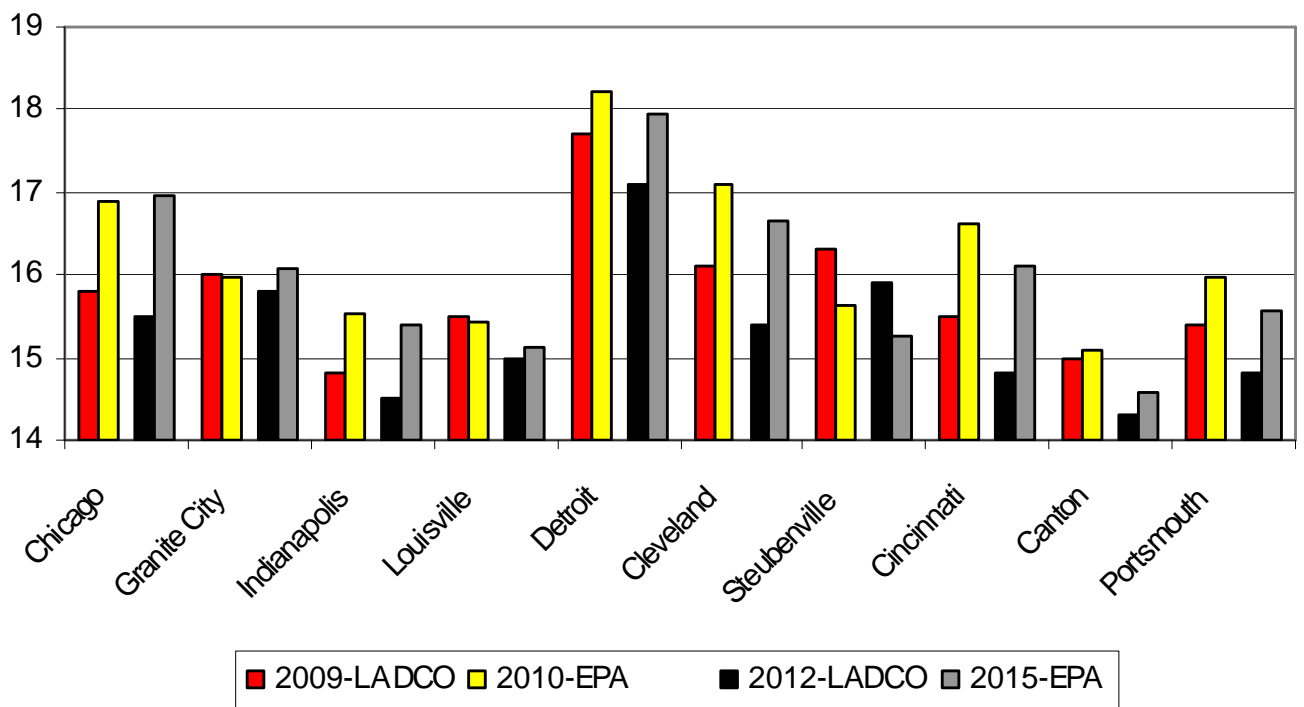


Figure 10b. LADCO v. EPA Modeling Results for Existing Control Measures (PM2.5)

Scenario 2: This scenario reflects Scenario 1a plus the additional SO<sub>2</sub> and NO<sub>x</sub> candidate control measures in the “Interim White Paper, Source Category: Electric Generating Units” (January 14, 2005):

- 2a reflects EGU<sup>2</sup> for the top 30 EGUs in the 5-state region (based on Q/d)
- 2b reflects EGU<sup>2</sup> for all EGUs within 100 km of a residual nonattainment area
- 2c reflects EGU<sup>2</sup> throughout the 5-state LADCO region
- 2d reflects EGU<sup>2</sup> throughout the 5-state LADCO region plus seven neighboring states: MN, IA, MO, KY, TN, WV, and PA
- 2e reflects EGU<sup>1</sup> throughout the 5-state LADCO region
- 2f reflects EGU<sup>1</sup> throughout the 5-state LADCO region based on recent IPM modeling
- 2g reflects EGU<sup>2</sup> throughout the 5-state LADCO region based on recent IPM modeling

Scenario 3: This scenario reflects Scenario 2 plus additional white paper controls for stationary and mobile sources

Scenario 3a reflects the minimum control level for the EGU, non-EGU point, and area source White Paper controls, plus chip reflashing for HDDVs and a “highly cost effective” voluntary/incentive control program for HDDVs and construction equipment (i.e., < \$5,000/T)

Scenario 3b reflects the maximum control level for the EGU, non-EGU point, and area source White Paper controls, plus chip reflashing for HDDVs and a “cost effective” voluntary/incentive control program for HDDVs, and construction and agricultural equipment (i.e., < \$10,000/T)

Scenario 4: This scenario reflects Scenario 1a plus the additional control measures under discussion by the MW and NE State Commissioners:

Non-EGU	ICI1
Area	AIM, consumer products, and portable fuel containers
On-Road	Reflashing (see discussion under Scenario 3)

In addition, the Commissioners have discussed a voluntary retrofit program (although it is unclear whether the objective is to reduce NO<sub>x</sub>, VOC, and/or PM) and a regional gasoline. For the purposes of this model run, the Scenario 3a on-road and nonroad controls were assumed to reflect these possible other controls.

Scenario 5: This scenario reflects Scenario 1a plus the additional control measures identified by the LADCO Project Team as a possible control option:

EGU	EGU1 for SO <sub>2</sub> , EGU2 for NO <sub>x</sub>
Non-EGU	ICI1
Area	AIM, consumer products, and portable fuel containers
On-Road	Reflashing (see discussion under Scenario 3) HDDV voluntary programs (diesel retrofits) Low RVP fuel
Nonroad	Construction equipment voluntary programs (diesel retrofits)

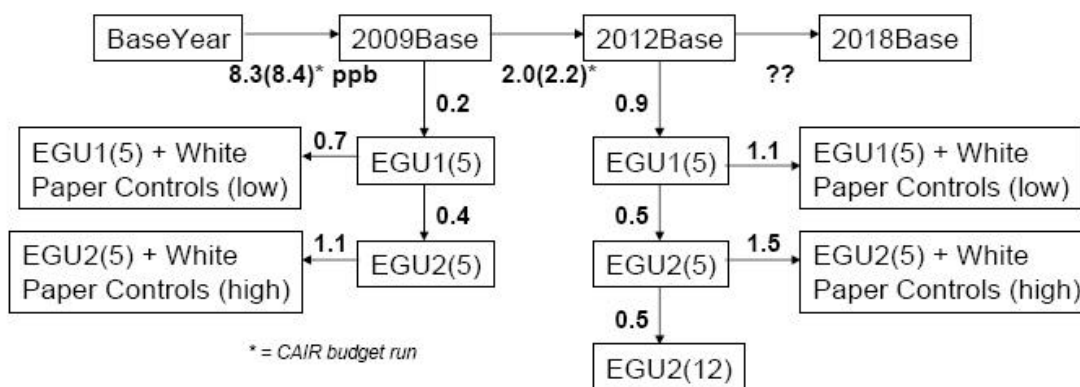
<sup>4</sup> EGU<sup>2</sup> and EGU<sup>1</sup> in Scenarios 2a – 2e were derived by applying control factors developed by MACTEC. The derivation of these control factors is explained in “Identification and Evaluation of Candidate Control Measures”, prepared by MACTEC, April 14, 2005.

In addition, the Project Team identified organic carbon control measures, case-by-case point source controls, and state programs (e.g., RACT rules). For the purposes of this model run, no emission reductions were assumed for these other controls due to the lack of specific control information.

The incremental air quality benefit for various control measures is shown in Figure 11. Although the incremental amounts appear to be small, they are actually quite significant when viewed in context of the degree of nonattainment (i.e., the average amount of nonattainment is 7 ppb for ozone and 1.3 ug/m<sup>3</sup> for PM<sub>2.5</sub>).

## Air Quality Improvement: Ozone

**Degree of Nonattainment: 7 ppb (average for sites  $\geq 89$  ppb);  
up to 9-14 ppb in Cleveland, Lake Mich.**



## Air Quality Improvement: PM<sub>2.5</sub>

**Degree of Nonattainment: 1.3 ug/m<sup>3</sup> (average for sites  $\geq 15.5$  ug/m<sup>3</sup>);  
up to 3-4 ug/m<sup>3</sup> in Detroit, Cleveland, Steubenville**

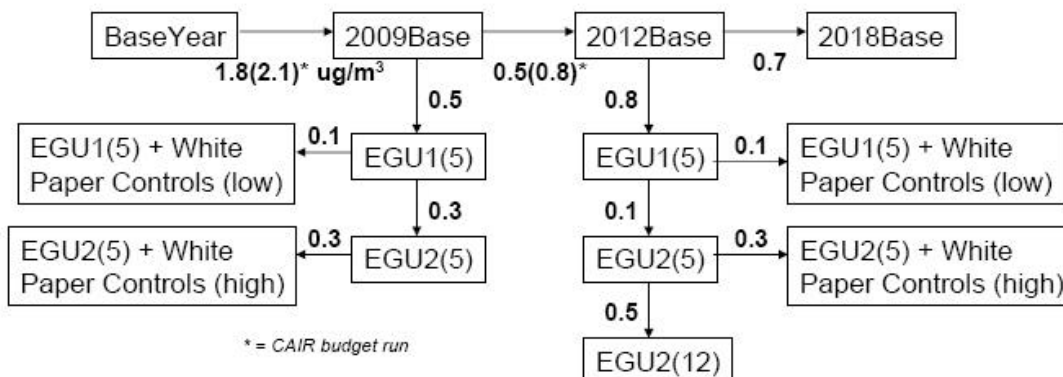


Figure 11. Average Air Quality Improvement for Ozone and PM<sub>2.5</sub>

The ozone and PM<sub>2.5</sub> modeling results for the key nonattainment monitors for some of the future year scenarios are provided in Figures 12 and 13. Several observations on these results should be noted:

- Existing control programs will improve air quality, but are not enough to provide for attainment (even with additional emission reductions occurring by 2012).
- Attainment by 2009 could not be demonstrated, even with all the candidate control measures at their maximum control level.
- Attainment by 2012 appears to be possible with a combination of existing control programs and several candidate control measures.

The modeling results for visibility are shown in Figure 14 for Class I areas in the upper Midwest and other parts of the eastern U.S., compared to the uniform rate of progress line.<sup>5</sup> (The values presented here are based on the new IMPROVE equation.)

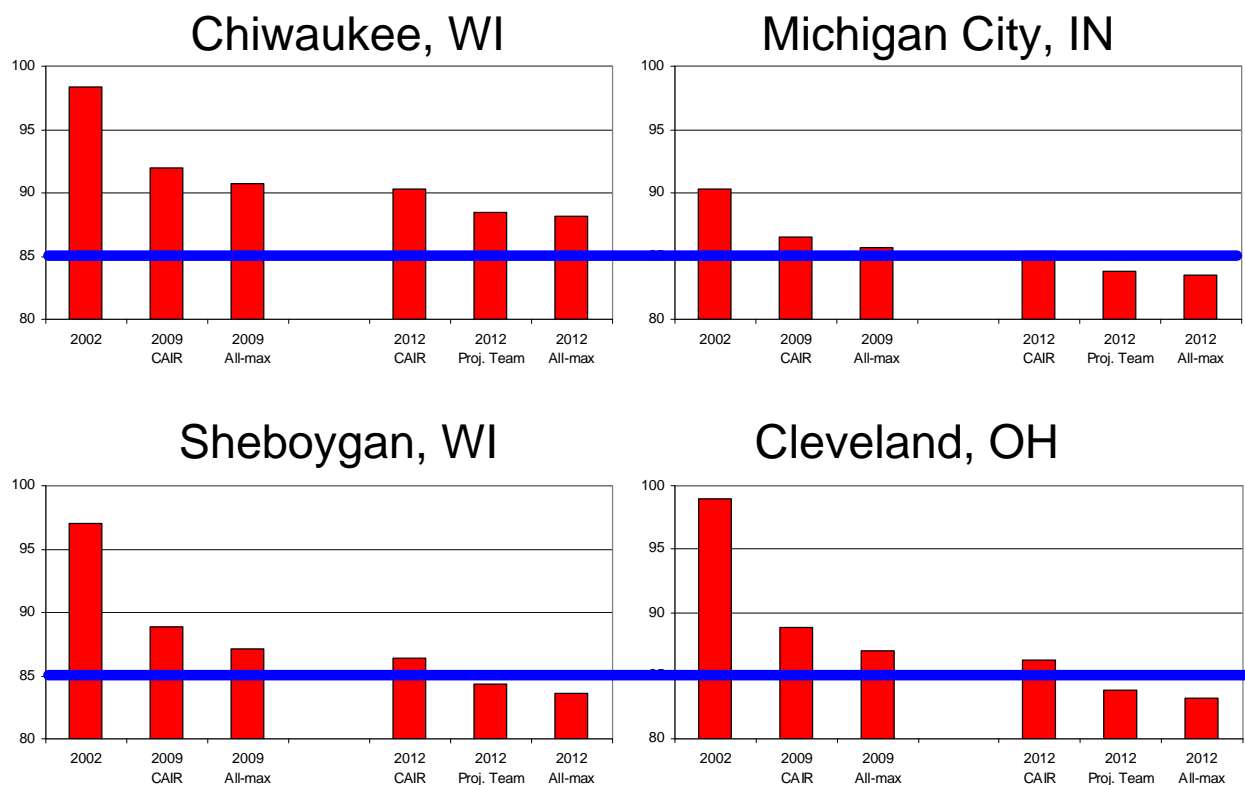


Figure 12. Future Year Ozone Design Values – Round 4 Scenarios

<sup>5</sup>

The haze requirement is to achieve reasonable progress by 2018 (i.e., the first milestone year for haze). A determination of reasonable progress for a given strategy is to be based on four statutory factors (i.e., costs, timing, energy impacts, and remaining useful life for the affected sources), as well as how the resulting visibility level compares with the uniform rate of progress. Only the comparison with the uniform rate of progress line is addressed here.

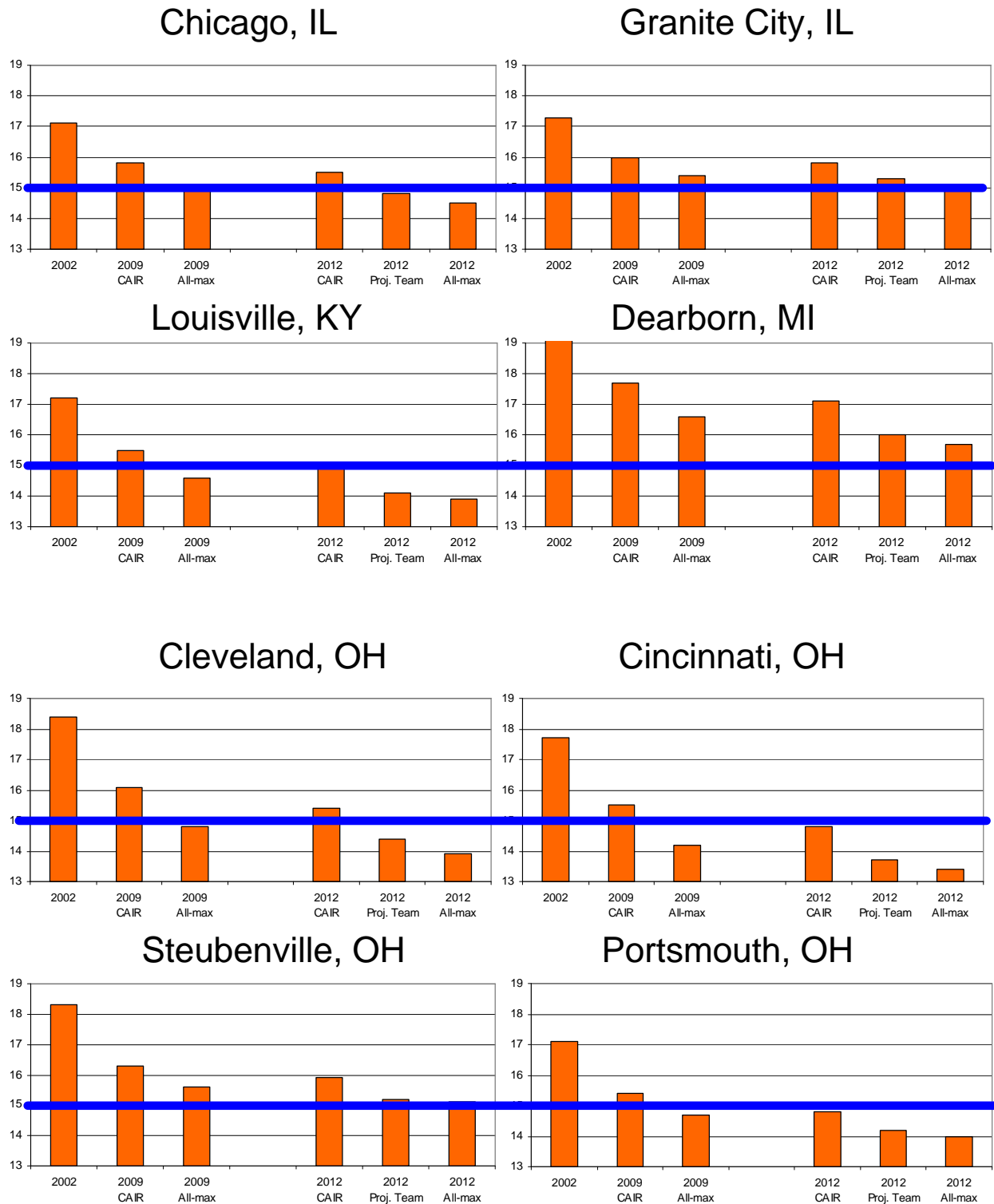


Figure 13. Future Year PM<sub>2.5</sub> Design Values – Round 4 Scenarios

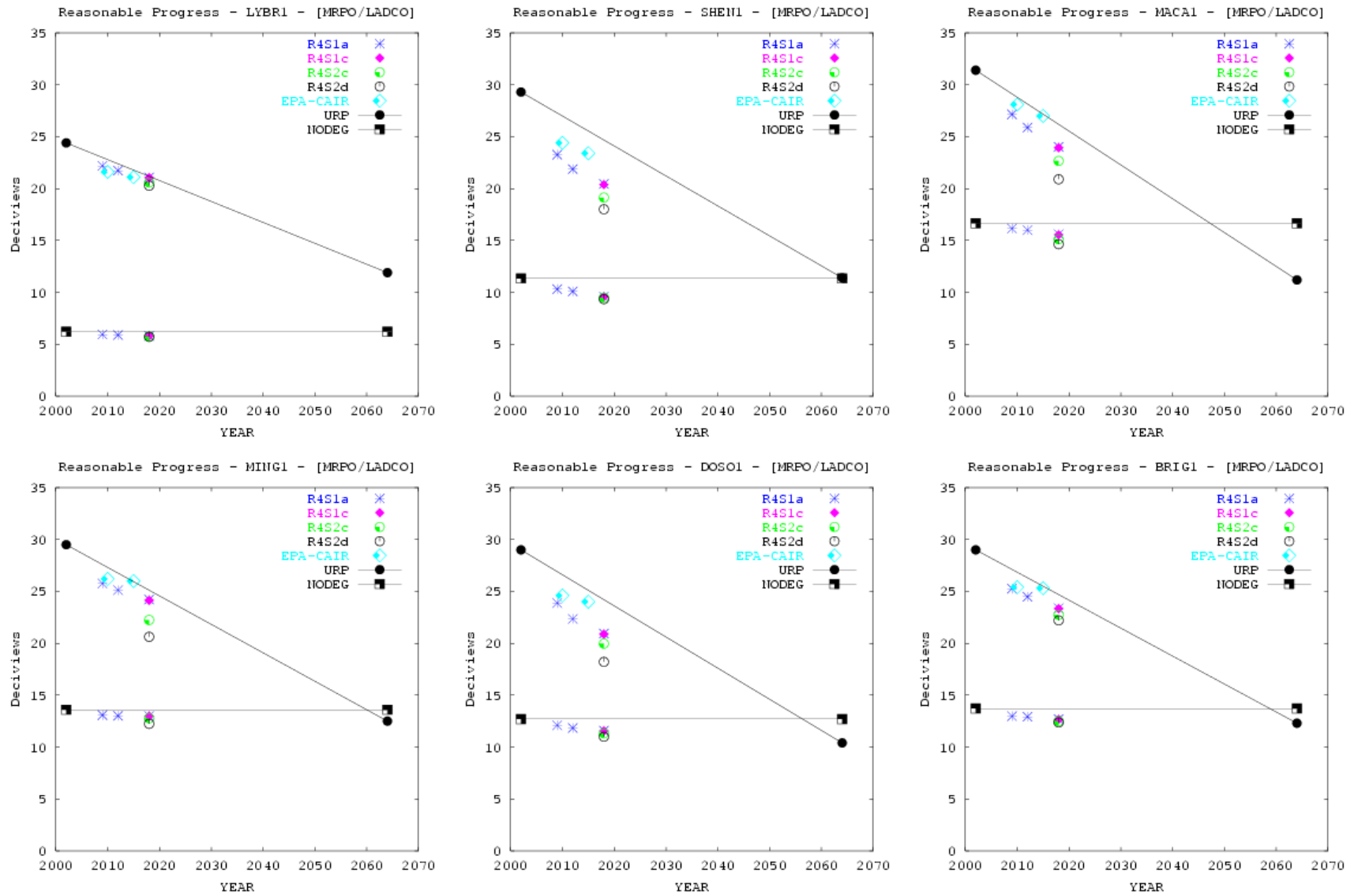


Figure 14. Future Year Visibility Levels – Round 4 Scenarios

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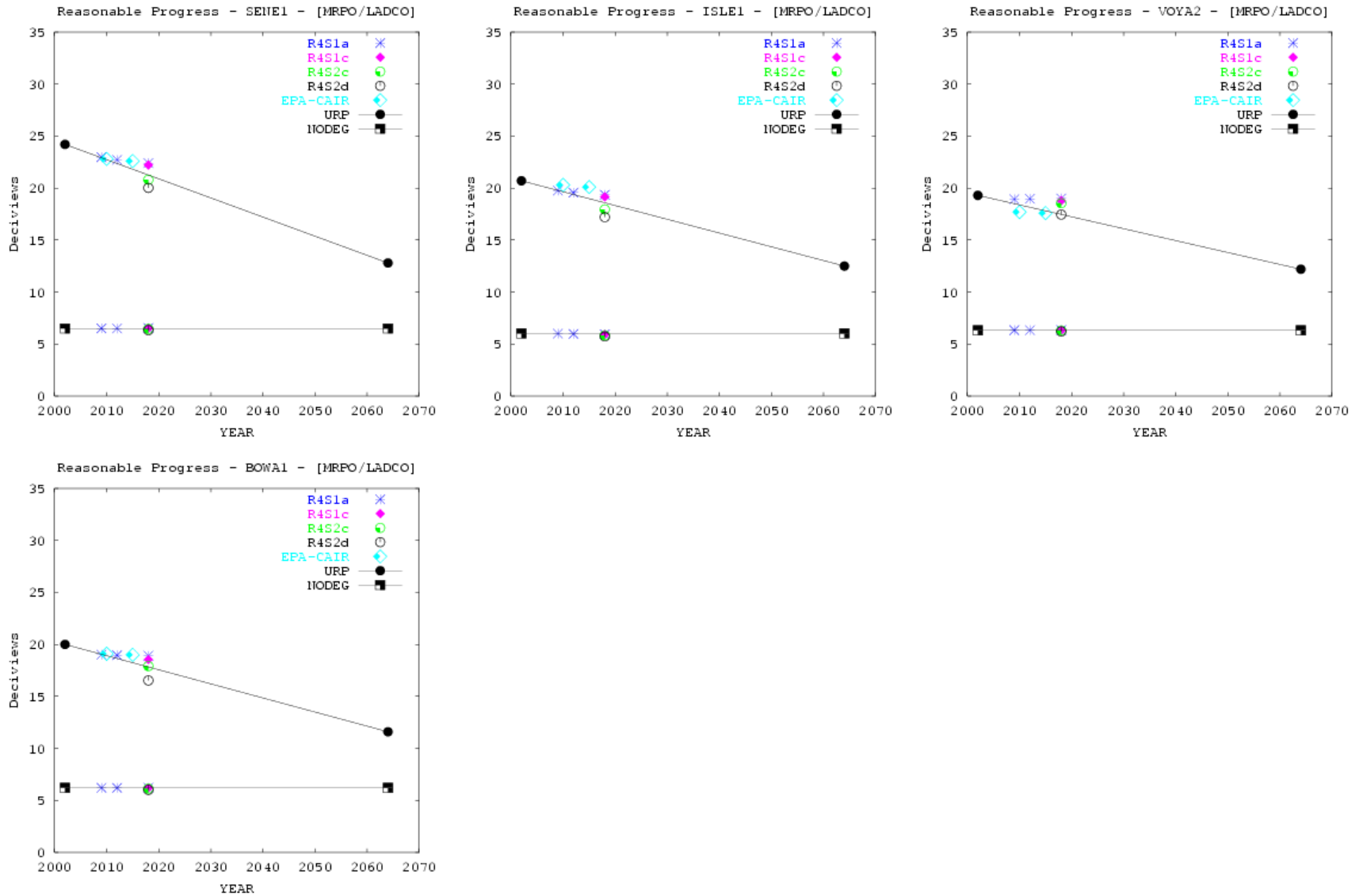


Figure 14. Future Year Visibility Levels – Round 4 Scenarios (continued)



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**Addendum Modeling Protocol:  
Technical Details**

Kirk Baker

October 12, 2006

Lake Michigan Air Directors Consortium  
Midwest Regional Planning Organization

Rosemont, Illinois

## 1. INTRODUCTION

The purpose of this addendum is to provide technical details related to the photochemical transport modeling done to support State Implementation Plans (SIPs) for ozone, particulate matter less than 2.5 microns (PM<sub>2.5</sub>), and regional haze. This document supplements the June 16, 2004 Modeling Protocol document available at [www.ladco.org](http://www.ladco.org). Documents that relate to a conceptual description of ozone, PM<sub>2.5</sub>, and regional haze in the Upper Midwest are available on the organization website: [www.ladco.org](http://www.ladco.org).

### Modeling Platform

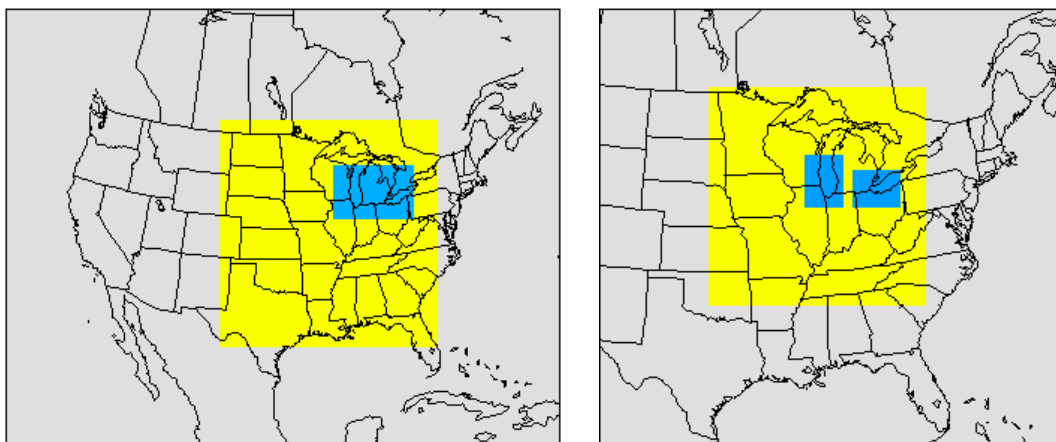
The computing platforms are Intel-based PCs running variations of the Linux operating system. The Portland Group (PGI) Fortran compiler is used to create all executables.

## 2. METHODOLOGY

### Grid Projection and Domains

All models are applied with a Lambert projection centered at (-97, 40) and true latitudes at 33 and 45. The 36 km photochemical modeling domain consists of 97 cells in the X direction and 90 cells in the Y direction covering the central and eastern United States with 36 km grid cells (Figure 2.1; Table 2.1). The 2-way nested 12 km photochemical domain covers most of the upper Midwest region. A 2-way nested 4 km photochemical domain is situated over the lower portion of Lake Michigan and over Detroit-Toledo-Cleveland.

Figure 2.1 Modeling Domains: Meteorological (left), photochemical (right)



The 36 km meteorological modeling domain covers the entire continental United States (Figure 2.1; Table 2.1). The 12 km meteorological domain covers most of the central and eastern United States and the 4 km domain covers the lower portion of the Great Lakes.

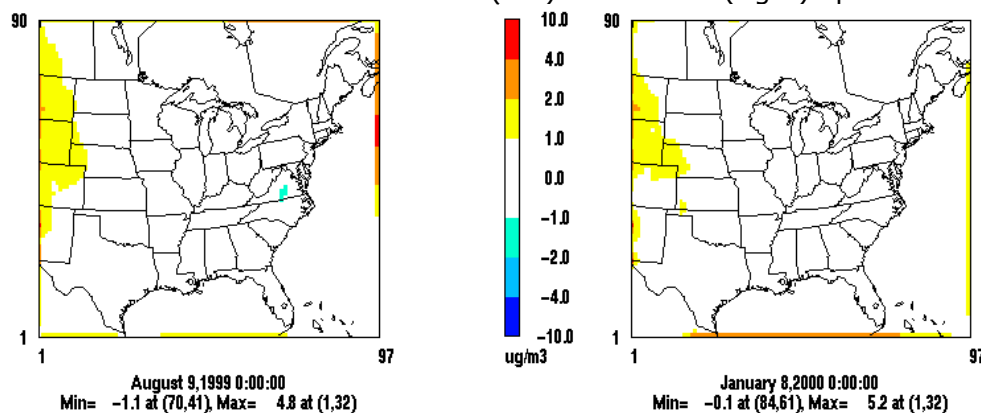
CAMx4 is applied with the vertical atmosphere resolved with 16 layers up to approximately 15 kilometers above ground level.

Table 2.1 Modeling Domains

Grid	Cell Size	XY Origin (km)	NX, NY
Emissions	36 km	(-2628., -1980.)	147, 111
Meteorological	4 km	(576., 108.)	214, 142
Meteorological	12 km	(-648., -1260.)	193, 199
Meteorological	36 km	(-2952., -2304.)	165, 129
Photochemical	36 km	(-900., -1620.)	97, 90
Photochemical (chimil)	4 km	(680., 176.)	56, 83
Photochemical (detcle)	4 km	(1040., 176.)	74, 56
Photochemical/Emissions	12 km	(-48., -552.)	131,131

The photochemical model is not being applied to the entire 36 km Continental U.S. domain to maximize resources. A sensitivity study was conducted to compare winter and summer episode averaged PM<sub>2.5</sub> concentrations between a Continental U.S. domain and Central/Eastern U.S. domain using clean boundary conditions released with the CMAQ model. The episode average differences in PM<sub>2.5</sub> were less than 1 ug/m<sup>3</sup> in the Midwest RPO States and neighboring States (Figure 2.2).

Figure 2.2 Continental Domain – Central/Eastern U.S. Domain Episode Average PM<sub>2.5</sub> Difference Plots for Summer (left) and Winter (right) episodes



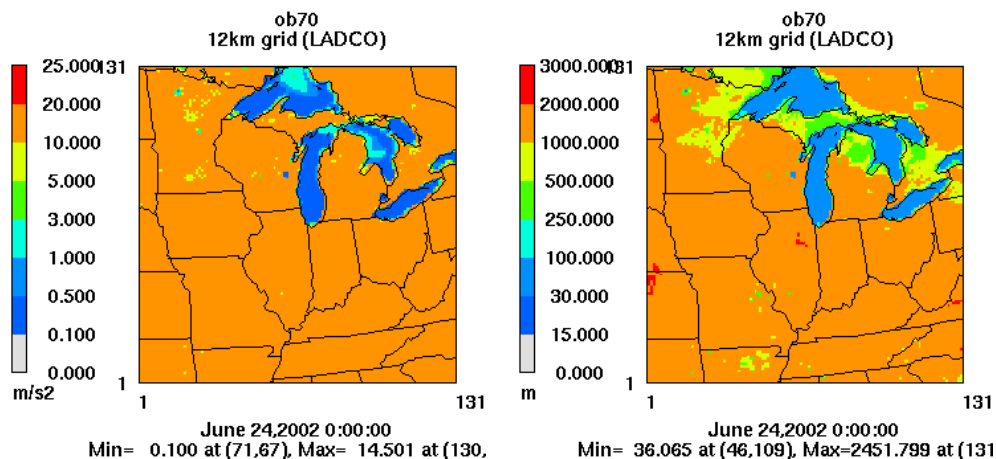
## Meteorological Inputs

Meteorological input data for the photochemical modeling runs are processed using the National Center for Atmospheric Research (NCAR) 5th generation Mesoscale Model (MM5) version 3.6.1 (Dudhia, 1993; Grell et al, 1994). Important MM5 parameterizations and physics options include mixed phase (Reisner 1) microphysics, Kain-Fritsch 2 cumulus scheme, Rapid Radiative Transfer Model, Pleim-Chang planetary boundary layer (PBL), and the Pleim-Xiu land surface module. Analysis nudging for temperature and moisture is only applied above the boundary layer. Analysis nudging of the wind field is applied above and below the boundary layer. These parameters and options are selected as an optimal configuration for the central United States based on multiple MM5 simulations using a variety of physics and configuration options (Johnson, 2003; Baker 2004a).

The meteorological fields output by MM5 are prepared for use by the photochemical model with processing utilities. These programs translate certain meteorological parameters from the MM5 grid to the photochemical grid. Additionally, these processors estimate parameters such as vertical diffusivity coefficients that are not

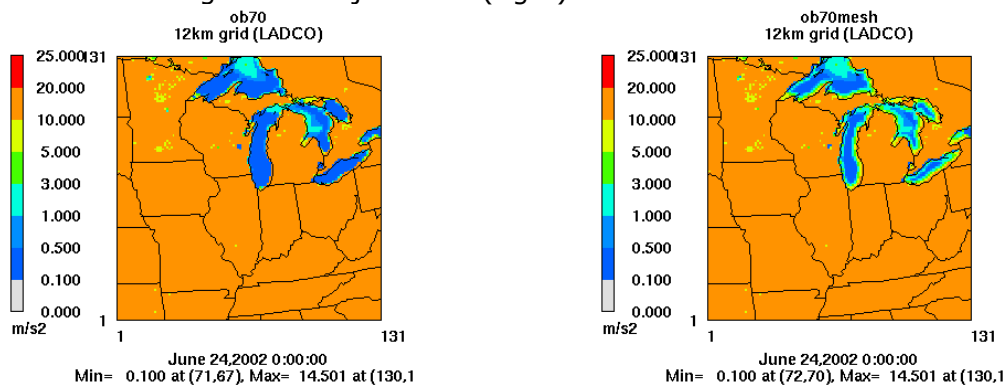
explicitly output by MM5. The MM5CAMx version 4.4 utility is used to translate MM5 output to CAMx input. The vertical diffusivity coefficients are based on the O'Brien 1970 vertical diffusivity algorithm. This scheme takes the PBL height output by MM5 and creates a well-mixed atmosphere inside the PBL. The minimum vertical diffusivity coefficient is  $0.1 \text{ m}^2/\text{s}$ . A landuse-weighted vertical diffusivity coefficient (maximum of  $1.0 \text{ m}^2/\text{s}$  in a completely urban grid cell) is assigned to all grid cells up to approximately 150 meters above ground (model layer 3). This is done to better represent the greater mechanical mixing overnight in urban areas. An additional adjustment to vertical diffusivity coefficients creates a transitional gradient in values from shore to large water bodies. Figure 2.4 shows maximum vertical diffusivity coefficients and PBL height for a typical model episode day.

Figure 2.4 Peak Kv ( $\text{m}^2/\text{s}$ ) values and peak PBL (m) values



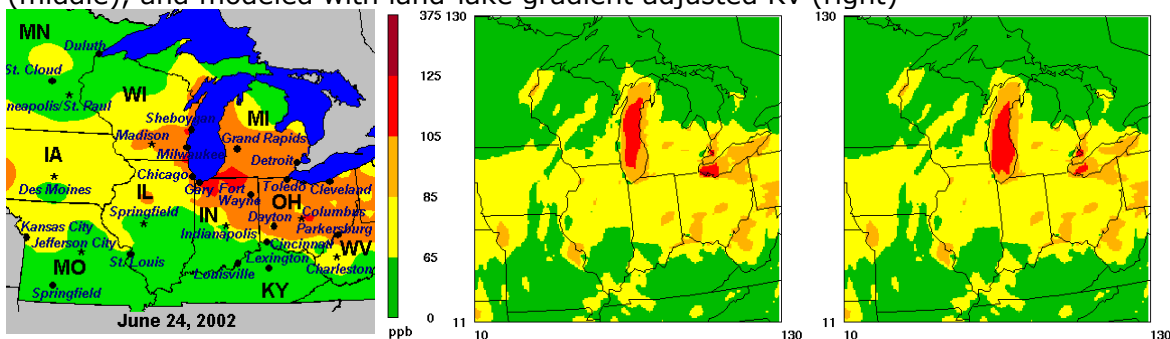
The gradient from land to lake vertical diffusivity coefficients extends over an order of magnitude during mid-day peak photochemical activity. PBL heights at a land cell are typically over 1000 meters and the adjacent cell over one of the Great Lakes is 30 meters. Air over the Great Lakes is typically stable and has low mixing, but the model does not have any transition from land to lake. An adjustment scheme is employed when cells having greater than 75% water have a vertical diffusivity coefficient equal to the average of the  $5 \times 5$  group of cells centered on that particular grid cell.

Figure 2.5. Vertical diffusivity coefficients ( $\text{m}^2/\text{s}$ ) using standard MM5 output (left) and land-lake gradient adjustment (right)



The land-lake vertical diffusivity adjustments are shown for an episode day in Figure 2.5. These adjustments result in minimal change to model performance (Figure 2.6) and a reduction in extreme NOX disbenefit response in grid cells near the lake-shore.

Figure 2.6. Peak 8-hr O<sub>3</sub> (ppb) observations (left), modeled with standard Kv (middle), and modeled with land-lake gradient adjusted Kv (right)



The vertical resolution used in MM5 consists of 34 sigma layers that represent the terrain following atmosphere up to 100 millibars. Figure 2.7 displays each vertical layer in terms of sigma level, pressure (millibars), height above ground level (meters) and layer thickness (meters). The relationship to the layer structure used in the photochemical models is also shown. The photochemical model layer structure avoids layer collapsing in the lower boundary layer to better resolve the mixing depth.

Figure 2.7 Vertical Layer Structure

k(MM5)	sigma	p(mb)	depth(m)	k(PCM)	depth(m)
34	0.000	100	1841	16	5597
33	0.050	145	1466		
32	0.100	190	1228		
31	0.150	235	1062		
30	0.200	280	939	15	2549
29	0.250	325	843		
28	0.300	370	767		
27	0.350	415	704	14	2533
26	0.400	460	652		
25	0.450	505	607		
24	0.500	550	569		
23	0.550	595	536	13	1522
22	0.600	640	506		
21	0.650	685	480		
20	0.700	730	367	12	634
19	0.740	766	266		
18	0.770	793	259	11	428
17	0.800	820	169		
16	0.820	838	166	10	329
15	0.840	856	163		
14	0.860	874	160	9	318
13	0.880	892	158		
12	0.900	910	78	8	155
11	0.910	919	77		
10	0.920	928	77	7	153
9	0.930	937	76		
8	0.940	946	76	6	151
7	0.950	955	75		
6	0.960	964	74	5	148
5	0.970	973	74		
4	0.980	982	37	4	37
3	0.985	987	37	3	37
2	0.990	991	36	2	36
1	0.995	996	36	1	36
--SURF--	1	1000	0	--SURF--	--SURF--

A compromise in the upper troposphere is met by employing layer collapsing to reduce computational effort and still maintain some upper troposphere resolution for long-range transport. The layer structure chosen for a modeling application should be capable of adequately resolving the diurnal variations in the boundary layer growth and mixing, long-range transport processes, wind shear, as well as transport to and from the free troposphere.

## Emissions Inputs

Emissions data is processed using EMS-2003. The EMS-2003 model is selected for its ability to efficiently process the large requirements of regional and daily emissions processing. In addition to extensive quality assurance and control capabilities, EMS-2003 also performs basic emissions processes such as chemical speciation, spatial allocation, temporal allocation, and control of area, point, and mobile source emissions (Janssen, 1998; Wilkinson et al, 1994). Outputs from EMS-2003 include a coordinate-based elevated point source file and gridded emissions estimates for low-point, area, mobile, and biogenics sources. Anthropogenic emission estimates are made for a weekday, Saturday, and Sunday for each month. The biogenic emissions are day-specific. Volatile organic compounds are speciated to the Carbon Bond IV (CB4) chemical speciation profile (Carter, 1996).

Table 2.2 CAMx Emissions Species

SPECIE	DESCRIPTION
ALD2	Aldehydes
ETH	Ethylene
FORM	Formaldehyde
ISOP	Isoprene
OLE	Olefins - Anthropogenic
OLE2	Olefins - Biogenic (OVOC)
PAR	Paraffins
TOL	Toluene
XYL	Xylene
NH3	Ammonia
CO	Carbon monoxide
NO2	Nitrogen dioxide
NO	Nitrogen oxide
SULF	Sulfur
SO2	Sulfur dioxide
PEC	Primary PM-fine elemental carbon
PNO3	Primary PM-fine nitrate
POA	Primary PM-fine organic aerosol
PSO4	Primary PM-fine sulfate
CCRS	Primary PM-coarse crustal
FCRS	Primary PM-fine crustal
CPRM	Primary PM-coarse "other"
FPRM	Primary PM-fine "other"

The point and area source inventories are based on the State Consolidated Emissions Reporting Rule (CERR) submittals, other RPOs, and the 2002 National Emission Inventory (EPA, 2005). Continuous emissions monitoring data were used to develop temporal profiles for electrical generating units. These new profiles account for month of year and day of week variations and are unit specific.

On-road emissions are estimated using MOBILE6.2 emission factors and VMT from the 2002 NEI. The MOBILE6 inputs were supplied by the MRPO States, Iowa, and



Minnesota and from the 2002 NEI for all other States. Updated on-road temporal data is based on an analysis of traffic count data in Michigan, Wisconsin, and Minnesota. Default temporal tables are modified to represent a more complex distribution of vehicle miles traveled for the weekend.

Off-road emissions are estimated with the NONROAD2004 and NMIM models using data from the State CERR submittals, EPA's 2002 NEI, and local data for agricultural equipment for the MRPO States plus Iowa and Minnesota. Contractor supplied emissions estimates are used for commercial marine and locomotive non-road categories. NMIM was run with fuel parameter inputs consistent with the on-road emissions modeling. These emissions do not include permeation effects.

Biogenic emissions are estimated with EMS-2003 using the BEIS3 model (Guenther et al, 2000). The BELD3 land use dataset is input to the biogenic model for fractional land-use and vegetative speciation information (US EPA, 2006; Kinnee et al. 1997; Kinnee et al. *in press*). Other inputs to the biogenic emissions model include hourly satellite photosynthetically activated radiation (PAR) and 15 m (above ground level) temperature data output from MM5 (Pinker and Laszlo, 1992).

Ammonia emissions are based on the July 2004 version (v3.6) of Carnegie Mellon University's (CMU) ammonia model using 2002 census of agriculture data (Strader et al. 2005; Pinder et al., 2004; Goebes et al., 2003). CMU ammonia emissions estimates are not used from the following categories: humans, dogs, cats, and deer. These omissions are based on the low likelihood that ammonia emissions from these sources would make it out of domestic dwellings in the case of humans, cats, and dogs and forested areas in the case of deer. Ammonia emissions are removed from other RPO's point source inventory to eliminate double-counting confined animal operations with CMU model estimates. Updated monthly and diurnal profiles were developed using the new process based ammonia model. The new profile represents beef, hogs, and dairy. Hog farms are assumed to represent poultry since the new process based ammonia model did not have a fully functional poultry housing model.

Currently, there are no anthropogenic Mexican emissions in the emissions input files. Canadian emissions are based on a 2000 inventory made available by Environment Canada to the Environmental Protection Agency.

The speciation profiles used by EMS are obtained from the latest version of EPA's SPECIATE database. MRPO contracted improved speciation profiles for certain emission categories. Details of this project are available in "Improving Modeling Inventory Data: Speciation Profiles – February 17, 2005" and available by request.

The development of the future year and even the base year emissions are continually being updated. The best place to find the most recent explanation of the base and future year scenarios is at the LADCO website (LADCO, 2006).

## **Landuse**

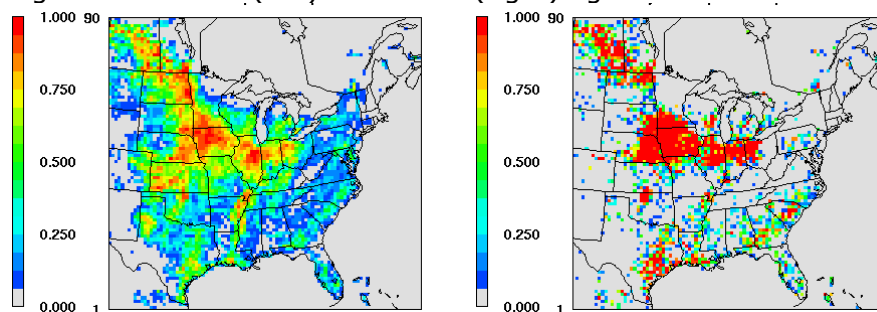
The photochemical model uses 11 land use categories to describe the surface. The land use file is based on BELD3 1 km data (US EPA, 2006; Kinnee et al. 1997; Kinnee et al. *in press*). The 1 km data was aggregated to the appropriate grid resolution for photochemical modeling. Surface roughness varies by season and land use category and are taken from EPA's AERMET User's Guide (EPA, 2004; ENVIRON, 2005).

**Table 2.3 Landuse categories**

Category	Landuse
1	Urban
2	Agricultural
3	Rangeland
4	Deciduous forest
5	Coniferous forest
6	Mixed forest
7	Water
8	Mixed agriculture/forest
9	Non-forested wetlands
10	Mixed agriculture/range
11	Rocky with low shrubs

USGS data was previously used for landuse information. The BELD3 was chosen because it incorporates the USGS data with other sources of information such as satellite data. A spatial comparison of the agriculture (category 2) landuse fractions are shown below.

**Figure 2.8 BELD3 (left) and USGS (right) agriculture landuse**



## **Drought Stress and Snow Cover**

The Palmer Drought Severity Index (PDSI) is an indicator of unusual excess or deficient moisture. The PDSI is calculated for 350 climatic divisions in the United States and Puerto Rico. PDSI data is available for each week of a calendar year and is obtained from the National Weather Service Climate Prediction Center (National Weather Service, 2005). The dry deposition calculations for non-water landuse categories are impacted by vegetative response to drought stress (ENVIRON, 2005).

Snow cover is also input to CAMx4 for the deposition scheme. Three-hourly snow cover data for each grid cell is extracted from MM5 output files. If snow exists in a grid cell, the deposition characteristics of the landuse are switched from "winter" to "winter with snow." This switch has an impact on surface resistances for dry deposition, surface roughness, and chemistry due to the ultraviolet albedo being changed to the maximum class (ENVIRON, 2005).

## **Photolysis Rates**

Many chemical reactions in the atmosphere are started by the photolysis of certain trace gases. Photochemical models require these rates be input to accurately

estimate these reactions. CAMx4 is applied with day specific photolysis rate look-up tables.

The Tropospheric Ultraviolet-Visible (TUV) radiation model is used to calculate photolysis rates based on solar zenith angle, height above ground, ultraviolet albedo of the ground, atmospheric turbidity, and total ozone column density. The TUV generates rates for each day as a function of 11 heights, 10 solar zenith angles, 5 ozone column values, 5 albedo values, and 3 turbidity values (ENVIRON, 2005; NCAR, 2006).

The ozone column data is derived from daily TOMS satellite observations (NASA, 2006). The albedo data varies by month and is based on over 10 years of TOMS satellite reflectivity observations. Actinic flux is estimated using the discrete ordinate algorithm. The two-stream delta-Eddington method is also available in the TUV model, but was not selected because the discrete ordinate approach is more accurate.

A sensitivity application with CMAQ using TOMS derived photolysis rates and rates based on seasonal average ozone column showed differences in ozone up to 3 ppb and differences in sulfate ion up to 1.5  $\mu\text{g}/\text{m}^3$ . These differences suggest day specific ozone column data from satellites should be used rather than seasonal averages and that accurate photolysis rates are important for ozone and particulate matter applications.

For those days that do not have TOMS ozone column data, the data from the previous day is used instead. This option is more realistic than defaulting to a seasonal average, which may create a rather large discontinuity between the missing day and adjoining simulation days.

### **Initial and Boundary Conditions**

Boundary conditions represent pollution inflow into the model from the lateral edges of the grid and initial conditions provide an estimation of pollution that already exists. In the past a spin-up period of two to three days was used to eliminate initial condition effects for ozone modeling.

CAMx4 source apportionment runs show ozone attributed to initial concentrations does not exceed 5 ppb anywhere in the domain by the 7<sup>th</sup> day of the episode; ozone modeling episodes will be spun up with 11 days. The monitors used in model performance evaluation are far enough away from the boundaries that boundary influence is considered minimal.

CAMx4 particulate source apportionment (PSAT) runs show PM<sub>2.5</sub> sulfate ion, nitrate ion, and ammonium ion contributions from initial concentrations fall below 0.05  $\mu\text{g}/\text{m}^3$  by the seventh day of the episode. PM<sub>2.5</sub> elemental carbon, PM<sub>2.5</sub> soil, and coarse mass have less than 1  $\text{ng}/\text{m}^3$  contribution from initial concentrations on the first day of the model episode everywhere in the modeling domain. Since gas phase chemistry is coupled with particulate formation, the annual simulations have two weeks of spin-up to minimize initial condition influence.

The initial and boundary conditions are based on monthly averaged species output from an annual (calendar year 2002) application of the GEOS-CHEM global chemical

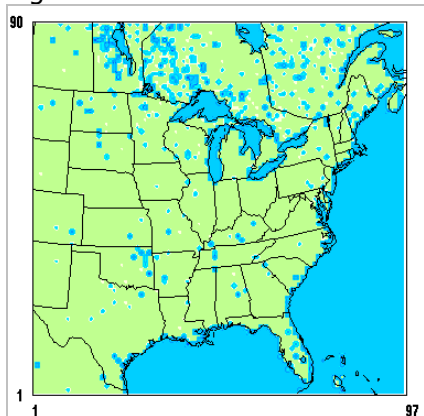
transport model (Jacob et al, 2005; Bey et al, 2001). Boundary conditions vary by month and in the horizontal and vertical direction. Where an initial or boundary concentration is not specified for a pollutant the model will default to a near-zero concentration.

### **Quality Assurance of Model Inputs**

The model input files are checked for reasonableness to ensure they accurately represent the underlying data used to create the files. The checks described in this document are steps that are in addition to the extensive QA done in the emission inventory compilation process, EMS emissions modeling, and MM5 modeling process.

The landuse files are converted to a CAMx4 output file format and directly viewed in PAVE over a political map. An example of the water landuse category is shown in the figure in this section.

Figure 2.9 Water landuse



The initial and boundary conditions processor outputs an ASCII file showing the specie concentration at each vertical layer. This is visualized in EXCEL to make sure the data is correctly mapped in the vertical direction. The initial and boundary concentration files themselves are also directly viewed in PAVE and the spatial representation is checked. The ozone column, albedo, and turbidity data are kept in ASCII files. Each file is checked to ensure the data looks spatially reasonable and that bad data did not get included in the file.

The emissions inputs are extensively checked for appropriateness. The steps taken in manipulating EMS-2003 output files to CAMx4 input files and the quality assurance of those files are detailed in "Emissions Processing and QA" (Baker, 2004b). Each emission file is checked for spatial and temporal agreement with EMS-2003 and for reasonableness. Additionally, the mass for each species is totaled and compared to EMS-2003 QA reports.

The MM5 output used to support the photochemical modeling is extensively evaluated from a meteorological perspective. An additional layer of quality assurance is done by evaluating model performance of the air quality model input meteorological data at several monitor locations. This is done for temperature, relative humidity, wind speed, and wind direction.

Photochemical model simulations also provide a level of quality assurance since deficiencies in emissions and meteorological inputs will be apparent in the photochemical model performance.

### **Photochemical Model Configuration**

The Comprehensive Air Quality Model with Extensions (CAMx) version 4.30 uses state of the science routines to model particulate matter formation and removal processes over a large modeling domain (Nobel et al. 2002; Tanaka et al. 2003; Chen et al. 2003; Morris, Mansell, Tai, 2004). The model is applied with ISORROPIA inorganic chemistry, SOAP organic chemistry, regional acid deposition model (RADM) aqueous phase chemistry, and an updated carbon-bond IV (CB4) gas phase chemistry module (ENVIRON, 2005; Nenes et al, 1998; Carter, 1996). CAMx4 is applied using the PPM horizontal transport scheme and an implicit vertical transport scheme with the fast CMC chemistry solver (ENVIRON, 2005).

The photochemical model is initiated at midnight Eastern Standard Time and run for 24 hours for each episode day. The summer 2002 simulation is initiated on June 2 and run through August 31. The annual simulation is run separately by calendar quarter and is initiated 2 weeks prior to each quarter: December 17, March 15, June 15, and September 15. The base and future year scenarios submitted as support for the annual PM2.5 standard will be using a horizontal grid resolution of 12 km. The modeling to support the 8-hr Ozone NAAQS will be at 12 km horizontal resolution over the entire upper Midwest and 2-way nested grids over the lower portion of Lake Michigan and over the Detroit-Toledo-Cleveland region.

CAMx4 models PM particles in the fine and coarse size fraction. There is no mechanism in the model to transfer mass between these 2 size sections. The particle density and diameter does not change from specie specific input values during a model simulation for either particle size bin.

Future year simulations will be applied with the same model configuration as for the base case simulation. All inputs except for emissions will be the same in the future year and base year simulations to assess changes in ozone, visibility, and PM2.5 due to control strategies and future growth. The terms base case and base line emissions inventories are one in the same, both referring to day specific biogenics and monthly weekday, Saturday, Sunday anthropogenic emissions.

### **Gas Phase Chemistry**

CB4 was originally developed for application to high NO<sub>x</sub> conditions, such as those that exist in urban areas (Tonnesen et al, 2001). RADM and SAPRC were developed specifically for low NO<sub>x</sub> conditions, such as those that exist in rural areas. The United States Environmental Protection Agency ran CMAQ with CB4 and RADM gas-phase chemistry and found the ozone predictions to be very comparable. However, the run times associated with RADM were twice as long as those with CB4 (Timin, 2002). SAPRC chemistry also typically has run times much longer than CB4, usually at least twice as long.

Starting in version 4.20, CAMx4 contains 17 new inorganic reactions that improve the science in the model without being inconsistent with the evaluation of CB4 against smog chamber data. The new reactions have little impact on predicted PM2.5, but increase ozone concentrations regionally. This regional increase in ozone

improves model performance in the Midwest United States and is due to reactions that recycle NO<sub>x</sub>. These reactions include the photolysis of organic nitrates and nitric acid and are included in other mechanisms including SAPRC99 and CBM-Z (ENVIRON, 2005; Carter, 2000; Zaveri and Peters, 1999).

## **Deposition**

Deposition processes are an important factor in pollution and visibility estimation. Wet and dry removal play an even more important role in regional modeling as the spatial and temporal scope of application increase. The wet deposition routine in CAMx4 has been upgraded to improve cloud and rainfall estimation (Kemball-Cook et al, 2004). The dry deposition routine is based on the equations developed by Wesley (ENVIRON, 2005; Wesley, 1989). The dry deposition equation is modified to adjust for special properties of certain chemical species such as nitric acid (very sticky) and ammonia (very reactive, fairly sticky, and shows a high degree of near-field deposition).

The ammonia RSCALE factor in the chemistry parameters input file to CAMx4 is set to 0.0, which is the same as nitric acid to account for the chemical characteristics of ammonia and physical processes (near-field deposition) not in the deposition model. A field study at a Colorado alpine tundra location showed that ammonia and nitric acid deposition velocities were very similar: both  $1.3 \pm 0.6$  cm/s (Rattray et al., 2001). The photochemical landuse model annual mean ammonia deposition velocity for all sites is 3.0 cm/s and the annual mean estimated nitric acid deposition velocity is 2.5 cm/s. The modeled ammonia and nitric acid deposition velocities agree within the uncertainty provided for in the Colorado alpine tundra field study.

## **Nesting**

Nested grids are useful to keep computational and data management resources acceptable while addressing important model application issues such as complex terrain, land-sea or land-lake breezes, and spatial emission gradients. They may also be useful to keep large point source plumes in smaller grid cells in lieu of having explicit sub-grid scale plume treatments.

CAMx4 allows for the inclusion of a fine grid within the coarse grid in a 2-way nesting mode. The 2-way nesting mode allows for interaction between the larger coarse grid with the smaller fine grid. This improves pollutant transport around the boundaries of the fine grid since a parcel of air may move from the fine grid, out to the coarse grid, and back into the fine grid depending on the shifting wind fields. This re-circulation is impossible in 1-way nesting applications

Several modeling applications have shown minimal benefit to PM<sub>2.5</sub> model performance from the inclusion of a nested 12 km grid (Baker, 2004c; Morris, Koo et al, 2004). The EPA modeling guidance recommends that modeling to support the annual PM<sub>2.5</sub> NAAQS be applied at a 12 km horizontal grid resolution so that grid resolution will be used to support the SIP. A 2-way nested 4 km grid will be applied over the lower portion of Lake Michigan and over the Cleveland-Toledo-Detroit area to better resolve the complex interaction between high density urban emissions and land-Lake meteorology.

## **Plume-in-Grid**

The GREASD sub-grid plume treatment option is being applied in CAMx4 for the summer season 12 km ozone simulations. This option is selected to improve the model treatment of large NO<sub>x</sub> plumes being released near Lake Michigan and Lake Erie. Sources included for the plume-in-grid treatment include any source near the Great Lakes with NO<sub>x</sub> emissions greater than 12 tons per day for any day of the summer in 2002 and 6 tons per day in future year scenarios.

At high grid resolutions of 4 km or finer, sub-grid scale treatment of plumes should not be applied since the fine grid appropriately captures the small scale physical and chemical processes.

## **Probing Tools (Source Apportionment)**

Probing tools are valuable from a scientific and regulatory perspective for one-atmosphere modeling. Use of source apportionment is more desirable for regulatory applications than the use of the “zero-out” approach to determine geographic and emissions sector culpability for annual modeling simulations. Zeroing out emissions for large regions such as entire States fundamentally changes the atmospheric chemistry and makes interpretation of the results difficult.

Particulate Source Apportionment Technology (PSAT) will be applied with CAMx4. The model will be run separately to track source region and emissions group contributions to the following: PM<sub>2.5</sub> sulfate, PM<sub>2.5</sub> nitrate, PM<sub>2.5</sub> ammonium, and PM<sub>2.5</sub> primary emissions (PEC, POA, FCRS, FPRM, CCRS, CPRM).

CAMx4 contains a variety of ozone source apportionment tools, which includes the standard ozone source apportionment tool (OSAT). The anthropogenic pre-cursor culpability assessment (APCA) tool assesses regional and emission sector contribution to ozone formation and provides information that is most policy relevant. The APCA tool is chosen over the other options, including the standard OSAT option.

When ozone is formed under VOC limited conditions due to biogenic VOC +anthropogenic NO<sub>x</sub> then OSAT attributes it to the biogenic VOC sources. When ozone is formed under NO<sub>x</sub>-limited conditions due to biogenic VOC + anthropogenic NO<sub>x</sub> then OSAT attributes it to the anthropogenic NO<sub>x</sub> sources. APCA is designed to provide more control strategy relevant information and recognizes that there are source categories such as biogenics that can not be controlled so the model attributes ozone to biogenics when it is due to the interaction of biogenic VOC+biogenic NO<sub>x</sub>. In the case where ozone formed to biogenic VOC + anthropogenic NO<sub>x</sub> under VOC-limited conditions, OSAT attributes it to biogenic VOC, but APCA redirects the attribution to anthropogenic NO<sub>x</sub>. In NO<sub>x</sub>-limited conditions both OSAT and APCA attribute the ozone to anthropogenic NO<sub>x</sub>. There is a similar situation with biogenic NO<sub>x</sub> + anthropogenic VOC but this rarely happens in the eastern United States (ENVIRON, 2005).

## **Probing Tools (Other)**

Currently, none of the PM models include process analysis for inorganic, secondary organic aerosol, or aqueous phase chemistry. A limited amount of information regarding nitric acid formation is available as process analysis implementation is



limited to gas phase chemistry reactions. Process analysis will not be emphasized until further development makes it useful beyond gas phase chemistry.

### **3. Model Performance Evaluation**

An evaluation of model performance should be considered for modeling to be used in support of an attainment demonstration. Model performance evaluation is typically categorized into 4 separate categories: operational, diagnostic, mechanistic, and probabilistic (Seigneur et al., 2000, Tonnesson et al., 2001).

Operational evaluation describes the model's skill in estimating chemically speciated particulate matter in the fine and coarse mode. The diagnostic evaluation is more rigorous and tests the model's skill in estimating PM precursors, associated oxidants, deposition, temporal variation, and spatial variation. Mechanistic evaluation examines the skill of the model in making appropriate responses of PM concentrations to changes in emissions and meteorology. Probabilistic evaluation includes the examination of uncertainties in both model predictions and ambient measurements of PM<sub>2.5</sub> and visibility (Tonnesson et al., 2001). A probabilistic evaluation is out of the scope of the current modeling effort. Information available regarding uncertainties in the measurement of the chemically speciated PM will be used in assessing the reasonableness of model estimates.

Operational and diagnostic evaluation will be done by comparing model predictions to ambient measurements of chemically speciated PM<sub>2.5</sub> and precursor species including SO<sub>2</sub>, NO<sub>x</sub>, and ammonia. Additionally, species that participate in reactions that form particulate matter such as ozone and nitric acid will also be used for performance evaluation. Operational evaluation for ozone modeling purposes will include evaluating model estimates against observation data including ozone, nitrogen species, and total VOC.

A rigorous mechanistic evaluation would entail modeling a historic episode and comparing that to a current episode with similar meteorology. An evaluation of ozone performance for an episode in 2002 and an episode in 1991 could potentially help determine the appropriateness of ozone response to emissions changes. This type of evaluation is problematic for PM<sub>2.5</sub> since very little historical chemically speciated PM<sub>2.5</sub> data exists. Other serious problems with this type of evaluation include differences in emission inventory compilation and differences in the meteorological analysis data used as input to MM5. Analysis of the model's skill in estimating speciated PM in different seasons and for weekends and weekdays is another way to assess whether the model accurately responds to different emissions and meteorology (US EPA, 2006c).

The photochemical modeling applications are designed to support the development of regional control strategies for PM<sub>2.5</sub> and Regional Haze. EPA guidance states that an attainment test for either standard will require the use of chemically speciated PM relative reduction factors (US EPA, 2006c). Additionally, the model will be used to assess improvements in PM<sub>2.5</sub> concentrations and visibility as a result of changes in emissions. These prominent end-uses of the modeling applications make comprehensive evaluations important. Clearly, reliance on model performance for PM<sub>2.5</sub> total mass would be misleading since it is likely that the model and ambient data could estimate the same total mass but very different chemical composition. This scenario would compromise the development and interpretation of potential regulatory control strategies (Baker, 2004d).

The species to be compared to monitor concentrations include ozone, total VOC, NOX, SO<sub>2</sub>, NH<sub>3</sub>, HNO<sub>3</sub>, and speciated PM<sub>2.5</sub> (see Table 3.1). Initially, scatter-plots of point-to-point relationships for all monitors in the domain for all episode days will be used for analysis for PM. This will allow for identification of gross model over or under-prediction by specie. Gas and aerosol data are taken from a variety of monitor networks for comparison to modeled estimates: IMPROVE, EPA Speciation Trends (STN), AIRS, and PAMS. The data is obtained directly from the VIEWS website and from the AFS database; a comparison of the monitor species to model species is shown below. PM<sub>2.5</sub> ammonium ion is only measured at EPA Speciation Trends locations so the model performance for this chemical specie is dominated by, but not limited to, urban measurement locations.

Table 3.1 Species mapping between modeled and observed species (observed species from the VIEWS website)			
	IMPROVE	STN	CAMx4 species
Sulfate aerosol	SO4f	SO4f	PSO4
Nitrate aerosol	NO3f	NO3f	PNO3
Ammonium aerosol		NH4f	PNH4
Organic aerosol	OCf*FACTOR  FACTOR = 1.6 rural 2.1 urban	OCf*FACTOR  FACTOR = 1.6 rural 2.1 urban	SOA1+SOA2+ SOA3+SOA4+ SOA5+POA
Elemental carbon	ECf	ECf	PEC
Soil/Crustal	SOILf	SOIL = 2.2*ALf + 2.49*SIIf+1.63*CAf+ 2.42*FEf+1.94*TIIf	FCRS
PM2.5 other	MF-RCFM	MF-(RCFM)	FPRM
Coarse mass	CM_calculated		CPRM+CCRS
PM2.5	MF	MF	PSO4+PNO3+PNH4+POA+ SOA1+SOA2+SOA3+SOA4+ SOA5+PEC+NA+PCL+ FPRM+FCRS
Re-constructed fine mass	RCFM	RCFM = SO4f+NO3f+ NH4f+OCf*FACTOR+ ECf+(SOIL)	1.375*PSO4+1.29*PNO3+ POA+SOA1+SOA2+SOA3+ SOA4+SOA5+PEC+NA+ PCL+FPRM+FCRS
Re-constructed bext	aerosol_bext		fRH*[4.125*PSO4+ 3.87*PNO3]+4*(SOA1+SOA2+ SOA3+SOA4+SOA5+POA)+ 10*PEC+NA+PCL+FPRM+FCRS+ 0.6*(CPRM+CCRS)

Initial model performance evaluation plots and metrics will be based on matching predictions and observations in time and space. Alternatively, the closest prediction in the 5 x 5 grid of cells around the monitor location will be compared to the observation value to assess model performance “near” the monitor. There will not be any averaging over multiple-cell regions to match with an observation value. Qualitative evaluation will be done largely through graphical comparison of predictions and observations using spatial plots, time series plots, and scatter plots.

Model performance evaluation methodology for PM<sub>2.5</sub> and Regional Haze is described in the EPA document “Guidance for Demonstrating Attainment of Air Quality Goals for PM<sub>2.5</sub> and Regional Haze” (US EPA, 2006C). The guidelines describing good model performance for chemically speciated PM<sub>2.5</sub> are based on a

few early modeling applications that were limited in domain and episode length. For these reasons, the suggested guidelines for model performance to support regulatory applications are not included in this document. The newer 8-hr ozone modeling guidance recommends against using any bright-line evaluation of performance metrics to determine whether the modeling is satisfactory (US EPA, 2005).

### 3.1 Particulate Matter and Regional Haze

The components of the visibility equation match up very closely to the prominent chemical forms of PM<sub>2.5</sub>: nitrate ion, sulfate ion, ammonium ion, organic carbon, elemental carbon, and soil (EPA, 2006C). Since these modeling applications will support PM<sub>2.5</sub>/Haze rules, model performance will be most rigorous for each of these PM<sub>2.5</sub> species and coarse mass.

One of the problems related to PM model performance evaluation involves matching inconsistent monitor methodologies and model specie definition. Additionally, speciated measurements rarely add up to measurements of total fine mass. This unexplained fraction is usually attributed to the retention of water on the weighed samples (Timin, 2002). Other problems with comparing speciation samples and FRM measurements include volatilization of nitrate and positive and negative organic carbon artifacts (Timin, 2002).

Organic material is typically estimated from organic carbon using a 1.4 factor, which is based on the assumption that carbon accounts for 70% of the organic mass. Recent literature recommends a factor of  $1.6 \pm 0.2$  for urban aerosol and  $2.1 \pm 0.2$  for non-urban areas that would see more aged aerosol (Turpin and Lim, 2001; IMPROVE Steering Committee, 2006). These factors are applied to the observation data based on landuse type before being compared to model output. These factors may also be used to reduce modeled estimates of organic material to organic carbon.

Performance metrics used to describe model performance for PM<sub>2.5</sub> species include mean bias, gross error, fractional bias, and fractional error (Table 3.2) (US EPA, 2006C). The bias and error metrics are used to describe performance in terms of the measured concentration units ( $\mu\text{g}/\text{m}^3$ ). Even though the distribution of PM<sub>2.5</sub> is log-normal, the data is not transformed for this analysis. The model attainment tests outlined by EPA for the PM<sub>2.5</sub> NAAQS and Regional Haze rule require relative reduction factors to be applied to actual concentrations and not transformed concentrations. No minimum value is used to eliminate data points for the purposes of this analysis.

**Table 3.2. Model Performance Metrics.**

Mean Bias	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M (P_i^j - O_i^j)$
Gross Error	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M  P_i^j - O_i^j $
Fractional Bias	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M \left( 2 \times \frac{P_i^j - O_i^j}{P_i^j + O_i^j} \right)$
Fractional Gross Error	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M \left  2 \times \frac{P_i^j - O_i^j}{P_i^j + O_i^j} \right $

\*P=model prediction; O=observation; N=number of days; M=number of monitors

Fractional bias and fractional error metrics are useful for comparison of model performance between species that tend to have large concentrations and those with small concentrations. It also helps compare performance of the same specie if concentrations are very large in some seasons and very small in others. The fractional metrics are best when close to 0 and worst when close to 2.

### 3.2 Ozone

Hourly running 8-hour averaged surface ozone observations from EPA's AIRS database are matched to hourly running 8-hour averaged layer 1 (30 m height) model estimates for evaluation. Only monitors in the 12 km modeling domain are included in the analysis. Model performance evaluation plots and metrics are based on matching predictions and observations in time and space. EPA has suggested several statistical metrics to describe model performance and include mean normalized bias error (MNBE) and mean normalized gross error (MNGE) (see Table 3.3) (US EPA, 2005).

This modeling system is used to support regulatory applications, so the model performance analysis reflects this end-use of the modeling results. It is well known that ozone data tends to follow a log-normal distribution and for the purposes of scientific evaluations the data is often log-transformed before evaluation (Hogrefe et al, 2003). Observations and predictions used in the attainment test may not be transformed, so the data used for model performance evaluation will likewise not be transformed.

Table 3.3 Model Performance Metric Definitions.

Metric	Equation
Mean Normalized Bias Error (MNBE)	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M \left( \frac{P^j - O_i^j}{O_i^j} \right)$
Mean Normalized Gross Error (MNGE)	$= \frac{1}{N \times M} \sum_{i=1}^N \sum_{j=1}^M \left  \frac{P_i^j - O_i^j}{O_i^j} \right $

*\*P=model prediction; O=observation; N=number of days; M=number of monitors*

These metrics have traditionally been calculated when the observation value exceeds a certain minimum value, often 60 ppb for 1-hour ozone evaluation (Hogrefe et al, 2003). The MNBE and MNGE will be estimated using 3 different minimum 8-hour ozone thresholds: 20, 40, and 60 ppb. The 60 ppb minimum threshold level excludes prediction-observation pairs that are not of direct regulatory importance since the 8-hour ozone attainment test only applies to days with high ambient concentrations (US EPA, 2005). The 20 and 40 ppb minimum thresholds are included in the evaluation to get a better idea about how well the model is performing at predicting diurnal formation and removal processes and for days between high ozone episodes.

The metrics are estimated for all stations in the 12 km modeling domain for each day of the summer episode. The episode average metrics are estimated from the daily metrics.

### 3.3 Deposition

Wet deposition is measured at several monitoring networks and is also output by the photochemical model. The National Trends Network (NTN) and the Atmospheric Integrated Research Monitoring Network (AIRMoN) make up the National Atmospheric Deposition Program (NADP). NTN sites collect weekly measurements of wet deposition fluxes of anions (NO<sub>3</sub><sup>-</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>=</sup>) and cations (Ca<sup>2+</sup>, Mg<sup>2+</sup>, K<sup>+</sup>, Na<sup>+</sup>, NH<sub>4</sub><sup>+</sup>, H<sup>+</sup>). NADP network stations measure wet deposition as mass per volume (mg/L) and the model outputs mass per area (g/ha or mole/ha). CAMx4 wet deposition output is matched to NTN/NADP measurement data in units of kg/km<sup>2</sup> according to the details outlined below.

The calculations used to convert CAMx wet deposition output to compare to NTN/NADP network data:

$\text{SPECIE\_WD (g/ha)} * (1 \text{ ha} / 2.5 \text{ acres}) * (1 \text{ acre} / 0.0040469 \text{ km}^2) * (1 \text{ kg} / 1000 \text{ g})$

The calculations used to convert NTN/NADP data to compare with CAMx output data:

$\text{SPECIES (mg/L)} * (1 \text{ L} / 1,000,000 \text{ mm}^3) * \text{precipitation in mm} * (1 \text{ mm}^2 / 0.000000000001 \text{ km}^2) * (1 \text{ g} / 1000 \text{ mg}) * (1 \text{ kg} / 1000 \text{ g})$

The table below outlines the matching of observed species to CAMx output species.

Table 3.4 Observed and Modeled Wet Deposition		
	NADP/NTN	CAMx4
Sulfate	SO4	PSO4_WD + SULF_WD
Nitrate	NO3	PNO3_WD + HNO3_WD
Ammonium	NH4	PNH4_WD + NH3_WD
Crustal	Ca + Cl + Mg +K + Na	FCRS_WD + FPRM_WD

## 4. Attainment Tests

### Visibility

Visibility may be estimated by two similar methods that relate light extinction to ambient PM<sub>2.5</sub> concentrations (FLAG, 2000; EPA 2006c). Visibility will be estimated using the new equation recommended by the IMPROVE steering committee (IMPROVE, 2006). The new and old equations produce very similar estimates of light extinction in the upper Midwest. The new equation will be emphasized for the SIP modeling demonstration due to its more up to date science.

The equation shown below relates PM<sub>2.5</sub> specie concentrations to light extinction. Additional factors of f(RH) are included that change the light scattering of sulfate and nitrate based on climatologically averaged relative humidity.

$$\beta_{\text{ext}} = 2.2 * f_{\text{S}} \text{RH} * [\text{small sulfate}] + 2.4 * f_{\text{S}}(\text{RH}) * [\text{small nitrate}] + 4.8 * f_{\text{L}} \text{RH} * [\text{large sulfate}] + 5.1 * f_{\text{L}}(\text{RH}) * [\text{large nitrate}] + 2.8 * [\text{small OCM}] + 6.1 * [\text{large OCM}] + 10 * \text{EC} + 1 * \text{SOIL} + 0.6 * \text{CM} + 1.7 * f_{\text{SS}}(\text{RH}) * \text{SS} + \beta_{\text{rayleigh}}$$

Bext	Estimated extinction coefficient (Mm <sup>-1</sup> )
Sulfate	Sulfate associated with ammonium (SO <sub>4</sub> *1.375)
Nitrate	Nitrate associated with ammonium (NO <sub>3</sub> *1.29)
OCM	Organic carbon Mass
EC	Elemental carbon
SOIL	Inorganic primary PM <sub>2.5</sub> (soil, crustal, other)
CM	Coarse fraction particulate matter
SS	Sea salt
β <sub>rayleigh</sub>	Light scattering due to Rayleigh scattering (site specific)
fRH	Relative humidity adjustment factor

The apportionment of sulfate, nitrate, and organic carbon mass into small and large size fractions is shown below using 'X' as a placeholder for these species.

Large X = ([Total X] / [20 ug/m<sup>3</sup>]) \* [Total X], where [Total X] < 20 ug/m<sup>3</sup>

Large X = [Total X], where [Total X] ≥ 20 ug/m<sup>3</sup>

Small X = [Total X] – [Large X]

The fRH values are long-term averages that are site and month specific (US EPA, 2003a; US EPA 2003b; FLAG, 2000). The light scattering due to Rayleigh is site specific (IMPROVE, 2006). The NO<sub>2</sub> component to the light extinction equation is not included since it is not measured at Class I areas in the upper Midwest. The visibility equation is expressed as an extinction coefficient (β<sub>ext</sub>) and is converted to deciviews using the equation below.

$$\text{Deciview} = 10 \ln(\beta_{\text{ext}} / \beta_{\text{rayleigh}})$$

The reasonable progress test to determine the relationship between current and future year visibility is expressed in deciview units. The changes in deciview between



the current and future year strategy is the reasonable progress test and is shown below.

$$\text{Change in Deciview} = 10 \ln[(\beta_{\text{ext}})_{\text{future}} / (\beta_{\text{ext}})_{\text{base}}]$$

- or -

$$\text{Change in Deciview} = \text{Deciview}_{\text{base}} - \text{Deciview}_{\text{future}}$$

Visibility will be estimated for key Class I area in the Midwest for the base year and various future year scenarios. The changes in visibility between the base line and future year will be assessed using procedures in U.S. EPA's "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze" (EPA, 2006).

1. The visibility in deciviews will be ranked from high to low at each Class I area for the calendar years 2000-2004 using the monthly and site specific fRH values and the more recent IMPROVE light extinction equation.
2. The mean deciviews for the 20% days with the best and the 20% days with the worst visibility is estimated for each Class I area for each year of the 2000-04 baseline period.
3. The mean observed extinction coefficient for the days during the modeling period (2002) with the 20% best and 20% worst visibility will be calculated.
4. The mean predicted extinction coefficient for the corresponding 20% best and 20% worst days of the modeling period of the base case and future year strategy will be calculated using monthly site specific fRH values.
5. The relative reduction factor for the 20% best and 20% worst group of days for each site for each of the particulate matter species in the light extinction equation are estimated.
6. The relative reduction factors are multiplied by daily measured PM data during the 2000-04 baseline to estimate future daily values of these species.
7. These future daily PM estimates are used to estimate light extinction for each of the previously identified 20% best and 20% worst days of monitored data. Light extinction is converted to deciviews and the mean value for the best and worst days for each year of the baseline period is estimated.
8. The 5 mean deciview values for the worst and best days (one from each of the 5 years) are averaged together for a mean value for the best and worst days.
9. The future year mean deciview values in step 8 are compared to the observed values from step 2. The differences are compared to established goals for reasonable progress to determine if reasonable progress is demonstrated.

### **Annual PM<sub>2.5</sub> Standard**

Progress in meeting the annual PM<sub>2.5</sub> standard will be assessed by application of the procedures outlined by the U.S. EPA document "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze" (EPA, 2006c; EPA, 2004b). The major steps of this attainment test are outlined below:

1. Chemically speciated IMPROVE and STN PM<sub>2.5</sub> data from 2000-2004 is spatially interpolated to match the grid domain and resolution used for the photochemical modeling. Spatial fields are developed for each PM<sub>2.5</sub> chemical

- species for each season using the SAS statistical software package PROC KRIG function (EPA, 2004c).
2. The estimated fractional composition of each species by quarter is multiplied by the 5 year weighted average 2000-2004 FRM quarterly mean concentrations at each FRM monitor, resulting in estimated quarterly mean ambient concentrations of PM<sub>2.5</sub> components sulfate, nitrate, ammonium, elemental carbon, organic carbon, particle bound water, and crustal material.
  3. Estimate the modeled quarterly mean concentration for each chemical component of PM<sub>2.5</sub> in the base year and future scenarios.
  4. Calculate quarterly relative reduction factors for sulfate, nitrate, elemental carbon, organic carbon, and crustal material. The RRF is the ratio of the future year to the base year.
  5. Quarterly specific RRFs are multiplied by the quarterly average species concentration from step 2 to estimate future case quarterly average concentrations for each of the PM<sub>2.5</sub> species.
  6. Calculate the quarterly average future scenario concentrations for ammonium and particle bound water using estimated ambient concentrations of sulfate, nitrate, and degree of sulfate neutralization. Particle bound water is estimated with an empirical equation.
  7. Sum the quarterly future species concentrations to estimate the future quarterly average PM<sub>2.5</sub> concentration.
  8. The annual average future scenario concentration is the average of the 4 future year quarterly average PM<sub>2.5</sub> concentrations.
  9. Compare value to annual NAAQS standard of 15  $\mu\text{g}/\text{m}^3$ . If value is  $\leq 15 \mu\text{g}/\text{m}^3$  then the test is passed.

Organic carbon mass is estimated using a mass balance approach (EPA, 2006). The organic carbon spatial fields are only used to supply a minimum value for OCM when OCM estimated by mass balance is less than  $\text{OC} \times 1.4 \times 0.7$ . A spatial field of the degree of sulfate neutralization is developed to estimate PM<sub>2.5</sub> ammonium. Particle bound water is estimated using an empirical equation with spatially interpolated PM<sub>2.5</sub> sulfate ion, FRM equivalent PM<sub>2.5</sub> nitrate ion, and FRM equivalent PM<sub>2.5</sub> ammonium ion (EPA, 2006).

## **Ozone**

Progress in meeting the 8-hour ozone standard will be assessed in part using the modeled attainment test outlined by the U.S. EPA's "Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone, PM<sub>2.5</sub>, and Regional Haze" (EPA, 2006c; EPA, 2005). The attainment test is only applicable to monitors with design values  $\geq 75$  ppb. The major steps of the attainment test are described below:

1. Calculate the 8-hour ozone design value at each monitor location; the design value used in the attainment test is the average of 3 consecutive 3 year averaged design values: 2000-2002, 2001-2003, and 2002-2004.
2. Apply the photochemical model to a current year and future year to estimate a monitor specific relative reduction factor.
3. Calculate the future year design value by multiplying the monitor-specific observed design value by the monitor-specific relative reduction factor.
4. If the future year design value is  $\leq 84$  ppb then the test is passed at that monitor location.

The highest 8 hour daily maximum predicted in the 3x3 (or 7x7 for 4 km modeling) group of cells surrounding and including the cell in which the monitor is located will be used in the attainment test. The attainment test will be applied to all days during the summer of 2002 that meet the inclusion criteria for the relative reduction factor calculation (EPA, 2005). An episode day must have a peak 8-hr ozone model prediction > 85 ppb at a specific monitor or near the monitor (definition of near mentioned above) to be included in the attainment test. If there are less than 10 days of estimated peak 8-hr ozone at a monitor then the threshold for inclusion to the relative reduction factor is decreased until the number of days equals 10 or the threshold goes below 70 ppb (US EPA, 2005). If there are less than 4 days in the relative reduction factor calculation then the attainment test is not applied for that monitor.

### **Unmonitored Area Analysis**

An un-monitored area analysis is an additional review to identify areas that might exceed the 8-hr ozone or annual PM<sub>2.5</sub> NAAQS if monitors were present (US EPA, 2006c). This analysis uses interpolated spatial fields of ambient concentrations and photochemical model estimated concentrations to develop "model adjusted spatial fields of observations" (US EPA, 2006b). The model adjusted spatial fields are developed for the base year. Future year concentrations are estimated by applying RRFs to the base year model adjusted spatial field.

#### **8-hr Ozone NAAQS**

1. Ambient 8-hr ozone design values are interpolated to create the ambient spatial field. The design values are the average of the 2000-2002, 2001-2003, and 2002-2004 8-hr ozone design values.
2. The ambient spatial field is adjusted using gridded ozone seasonal average base year model output gradients.
3. Gridded RRFs are applied to the adjusted spatial field developed in step 2.
4. If any grid cell exceeds 84 ppb then that grid cell is predicted to exceed the 8-hr ozone NAAQS in the future scenario.

#### **Annual PM<sub>2.5</sub> NAAQS**

1. Quarterly PM<sub>2.5</sub> chemical species are interpolated to create the ambient spatial fields.
2. The ambient spatial field is adjusted using gridded ozone seasonal average base year model output gradients.
3. Quarterly gridded RRFs for each PM<sub>2.5</sub> species are applied to the adjusted spatial field developed in step 2.
4. If any grid cell exceeds 15 ug/m<sup>3</sup> then that grid cell is predicted to exceed the annual PM<sub>2.5</sub> NAAQS in the future scenario.

US EPA intends to provide software that incorporates monitor observation data and CAMx output to generate the gridded future year 8-hr ozone and annual PM<sub>2.5</sub> estimates (US EPA, 2006b). This software will be used to apply the un-monitored area analysis.

## **24-hr PM<sub>2.5</sub> Standard**

Progress in meeting the new 24-hr PM<sub>2.5</sub> standard will be assessed by application of the procedures outlined by the U.S. EPA document "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze" (EPA, 2006c). The major steps of this attainment test are outlined below:

1. Chemically speciated IMPROVE and STN PM<sub>2.5</sub> data from 2000-2004 is spatially interpolated to match the grid domain and resolution used for the photochemical modeling. Spatial fields are developed for each PM<sub>2.5</sub> chemical species for each season using the SAS statistical software package PROC KRIG function (EPA, 2004c). Rather than interpolating seasonal averages, the top 15% of reconstructed PM<sub>2.5</sub> mass samples are used as the basis of the chemically speciated data used for seasonal spatial fields.
2. Estimate the observed 98<sup>th</sup> percentile value for each year of the 5 year baseline period. Additionally, the next highest concentration in each quarter is identified. This results in data for each year and site which contains one quarter that equals the 98<sup>th</sup> percentile and 3 quarters which are less than or equal to the 98<sup>th</sup> percentile.
3. The quarterly maximum daily concentration is multiplied by the fractional composition of PM<sub>2.5</sub> species based on the spatial fields.
4. PM<sub>2.5</sub> component specific relative reduction factors are estimated at each monitor for each quarter.
5. The component specific RRFs are multiplied by the observed values to estimate future year concentrations.
6. The quarterly components are summed to estimate the quarterly future year 98<sup>th</sup> percentile value.
7. The 3 consecutive future year 98<sup>th</sup> percentiles are averaged together to estimate 3 different future year design values. The 3 future year design values are averaged to estimate a single 5-year weighted average 24-hour design value.
8. If this 5 year weighted average 24-hour design value is less than 35 ug/m<sup>3</sup> then the test is passed.

The relative reduction factor is only estimated for days with 24-hour average modeled PM<sub>2.5</sub> greater than 35 ug/m<sup>3</sup>. If less than 10 days in a quarter meet this criteria, then the threshold is lowered until the number of days equals 10 or the threshold goes below 20 ug/m<sup>3</sup>. If there are less than 5 days in the RRF calculation then that quarter is not used for the estimation of the future year design value. If no quarter has more than 5 days included in the RRF calculation then the attainment test is not applied for that monitor.

## **5.0 Other Issues**

### **Resource Requirements**

Photochemical models have different resource requirements: disk space for inputs and outputs, model run times, and staff time required for application.

The staff time required for CAMx model input set-up and post processing is minimal compared to other photochemical models due to the simple binary file formats, the lack of 3<sup>rd</sup> party software required for model application and intermediate processing utilities, and the availability of useful and simple pre-processors from the model developers.

The amount of time required to run our annual 36 km simulation is approximately 5 days. The approach is to run 4 seasons concurrently on 4 separate 2.0 GHz processors. A summer season 36/12 km 2-way nested simulation for ozone chemistry only takes about 6-7 days to complete using a single processor.

The input and output disk requirements for an annual simulation are 195 and 54 gigabytes respectively. So an annual simulation for the Eastern and Central United States at 36 km would total 250 gigabytes. Most of this space is taken up by emission inputs (low level and elevated point emissions). Since these files need to be modified for strategy runs, a significant amount of extra disk space should be allocated to store extra emission input files.

### **Technology Transfer and Modeling Capacity Building**

States that are part of the Midwest Regional Planning Organization and cooperating organizations have to opportunity to acquire a turn-key modeling system. This will include all the model inputs, scripts, and support documents to perform model simulations. States participate in an extensive sensitivity projects and preliminary strategy rounds which are designed in part to allow States to develop modeling expertise in-house.

The model input data will be available on an FTP site. The drawback is that transfer times will be long since the files are rather large, but the benefit is that as improvements and updates to input files, model code, and processing utilities become available they will immediately be available to everyone. This approach greatly reduces the resource burden involved with data distribution of media (i.e. hard drives or DLT tapes) via the mail system.

Where very large datasets need to be transferred USB/firewire drives will be sent via the mail system. A general figure where USB drives will be used for transfer instead of FTP would be 50+ gigabytes of data.

States and cooperating organizations will also participate in regular conference calls and face to face meetings to discuss problems, progress, and outline cooperative work objectives.

Ultimately, States that are inclined will be able to use the model inputs developed by the Midwest Regional Planning Organization as the basis for local emphasis modeling projects.

## **Data Management and Storage**

The file storage requirements for annual modeling are large and data backup is an important consideration. Important files including raw emissions and meteorological files will be stored redundantly on multiple hard drives. Additionally, all the model inputs will have a redundant copy at each member State as they will be using them for model simulations as part of the technology transfer and capacity building.

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**MOBILE SOURCE EMISSIONS INVENTORY FOR THE  
CINCINNATI OZONE NONATTAINMENT AREA**

*Includes a portion of Dearborn County Indiana, the counties of Boone, Campbell, Kenton in Kentucky, and the counties of Butler, Clermont, Clinton, Hamilton, and Warren in Ohio. Emission Estimates for the Year 2005, 2008 and 2018 developed in support of the Ozone SIP*

**MAY 2007**

Prepared for the Indiana Department of Environmental Management, the Kentucky Division for Air Quality and the Ohio Environmental Protection Agency by  
OKI Regional Council of Governments





## Acknowledgments

<b>Title</b>	Mobile Source Emissions Inventory for Cincinnati Ozone Nonattainment Area
<b>Abstract</b>	<p>This report documents the methodology and results of from the development of the mobile source emission inventory for ozone precursors in the Cincinnati ozone nonattainment area. The nonattainment area includes a portion of Dearborn County Indiana, Boone, Campbell and Kenton counties in Kentucky, and Butler, Clermont, Clinton, Hamilton and Warren counties in Ohio. The ozone precursors include volatile organic compounds (VOCs) and oxides of nitrogen (<math>\text{NO}_x</math>). The new 2005, 2008 and 2010 inventory, as provided in this report, includes the benefits of low RVP fuel in Butler, Clermont, Hamilton and Warren counties. It is expected that the 2008 emissions inventory will become the new regionwide 8-hour ozone motor vehicle emissions budget for the Cincinnati nonattainment area.</p>
<b>Date</b>	May 2007
<b>Agency</b>	Ohio-Kentucky-Indiana Regional Council of Governments Mark Policinski, Executive Director
<b>Project Manager</b>	Robert Koehler, P.E., Deputy Director
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## 1. INTRODUCTION

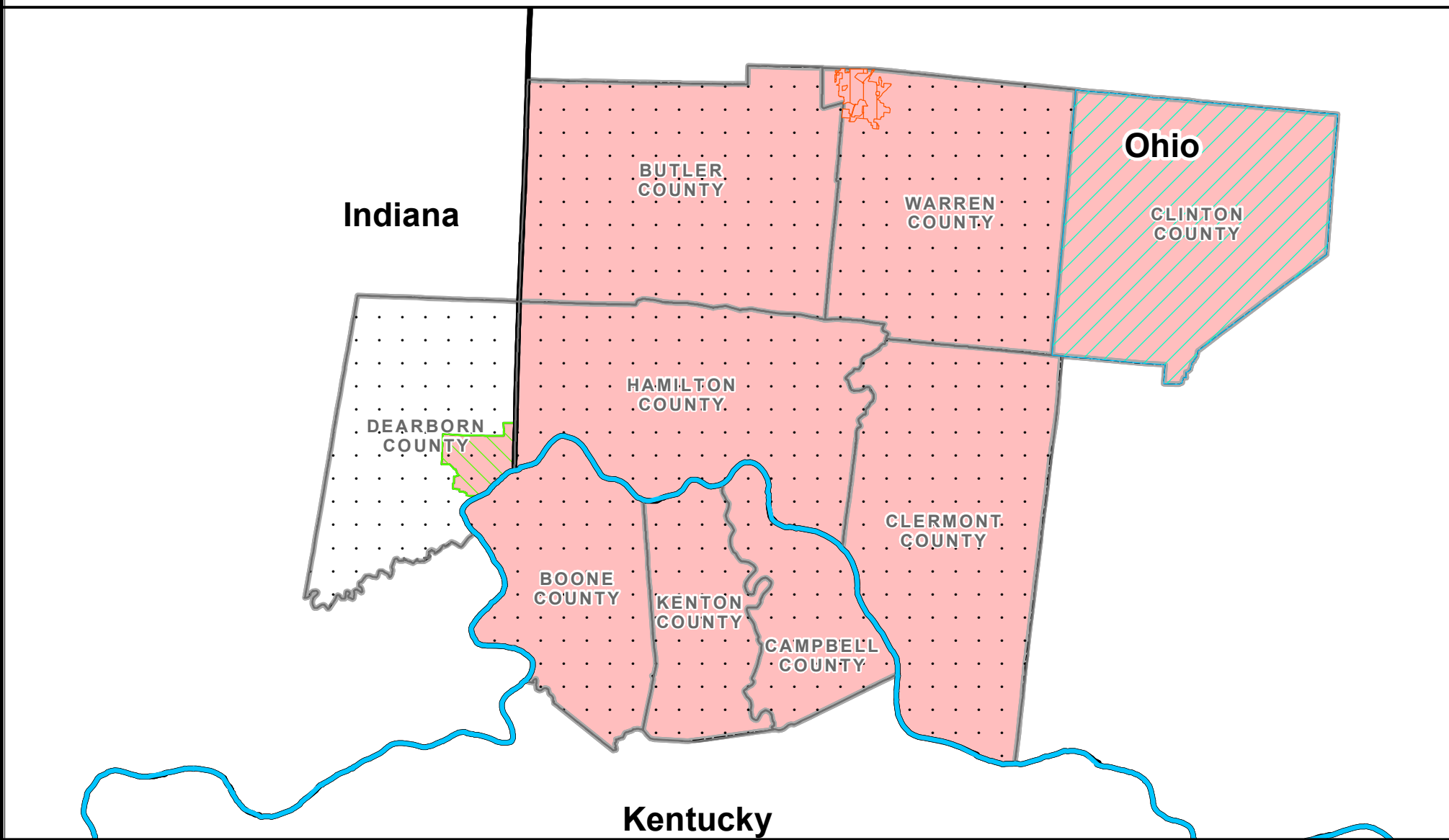
At the request of the Indiana Department of Environmental Management, the Kentucky Division for Air Quality, and the Ohio Environmental Protection Agency, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) has prepared this mobile source emissions inventory of ozone precursor pollutants. Pursuant to provisions of the CAAA of 1990, U.S. EPA designated a nine county area in the Cincinnati area as a basic nonattainment area for ozone under the eight-hour ozone standard in April 2004. The Cincinnati ozone nonattainment area includes Lawrenceburg Township in Dearborn County Indiana, the Kentucky counties of Boone, Campbell and Kenton, and the Ohio counties of Butler, Clermont, Clinton, Hamilton and Warren (Figure 1). Ozone is formed through chemical reactions induced when sunlight reacts with volatile organic compounds (VOCs; principally hydrocarbons) and nitrogen oxides (NO<sub>x</sub>). VOCs and NO<sub>x</sub> occur from incomplete combustion of fossil fuels. Transportation-related sources are a major contributor of these pollutants. Since heat speeds the reactions, ozone levels are typically highest during hot summer days.

The OKI Regional Council of Governments, as the Metropolitan Planning Organization (MPO), consists of Dearborn, Boone, Campbell, Kenton, Butler, Clermont, Hamilton and Warren counties. The cities of Franklin and Carlisle in Warren County are part of the Miami Valley Regional Planning Commission (MVRPC) planning area. Emissions for this portion of Warren County have been included in the inventory. Clinton County is outside of the OKI region, but is part of the ozone nonattainment area. The Ohio Department of Transportation (ODOT) is the lead planning agency for Clinton County. The Clinton County emissions analysis has been prepared by ODOT and has been included in this emissions inventory.

OKI, as the MPO, is responsible for transportation planning and air quality/transportation conformity. Transportation conformity is a mechanism to ensure that federal funding and approval are given to those transportation activities that are consistent with the air quality goals of the State Implementation Plans (SIPs) for Indiana, Kentucky and Ohio. The SIPs include an inventory of projected emissions from vehicles. The projected inventory is also known as the emissions budget. This budget establishes a maximum allowable limit on future emissions from vehicles (mobile sources). OKI's transportation plans and programs must be shown to be in conformity with all SIP provisions. The conformity process is a quantitative analysis, using U.S.EPA's vehicle emissions software (currently MOBILE), demonstrating that forecasted regional vehicle emissions do not exceed the established budget.

This report documents the process for developing the emissions inventory for the Cincinnati ozone nonattainment area. Section 2 details the process and procedures used and Section 3 describes the transportation network. Section 4 provides the emissions inventory.

# Figure 1 Cincinnati Area 8-Hour Ozone Nonattainment Counties



## Legend

- Added to Cincinnati AQ Analysis Area
- OKI MPO/Travel Demand Model Area
- Area without 1 Hour Budget (New Non-Attainment Area)
- 8 Hour Nonattainment
- MVRPC Travel Demand Model Area



## 2. MOBILE SOURCE EMISSION FORECAST PROCESS

### OKI Travel Demand Model

Transportation system performance was estimated using the OKI Travel Demand Model Version 7.3. The OKI Travel Demand Model is composed of TRANPLAN programs, CUBE Voyager programs and a series of FORTRAN programs written by OKI. It is a state of the practice model that uses the standard 4 phase sequential modeling approach of trip generation, distribution, modal choice and assignment. The model uses demographic and land use data and capacity and free-flow speed characteristics for each roadway segment in the network to produce a “loaded” highway network with forecasted traffic volumes with revised speeds based on specified speed/capacity relationships.

Travel analysis zones are the basic geographic unit for estimating travel in the OKI model. The OKI region is subdivided into 1608 traffic analysis zones to permit detail as well as manageability. A variety of socioeconomic data items are used in the OKI transportation planning process. These data are used primarily to forecast future travel patterns by serving as independent variables in OKI trip generation equations. The following categories of planning data are utilized:

- Population (household and group quarter)
- Households
- Household vehicles
- Employment (by employment category and zone of work)
- Labor force participation (by zone of residence)
- Area type

The principal data requirements of the OKI travel demand forecasting model are population and employment. From these variables, other characteristics including households, labor force, and personal vehicles may be derived. Chapter 5 of *OKI 2030 Regional Transportation Plan 2008 Update* provides a complete demographic overview of the region.

OKI utilizes both base year (2005) and future year data (2010, 2020 and 2030) in the planning process. Planning data are maintained at the Traffic Analysis Zone (TAZ) level, and originate in the 2000 Census of Population and Housing. Base year 2005 and future year data for each variable are developed through various methods. More detailed explanation of base year and future year data generation for each of the above-mentioned categories of planning data follows. All of the variables represent the latest OKI planning assumptions.

### Population

Base and Future Year Data: Population data for base year 2005 and future years 2010, 2020 and 2030 originate with the 2000 Census of Population and Housing. Utilizing ArcView GIS, population data at the zonal level for 2000 was derived from the area proportion allocation of block level population.

As a tri-state regional planning agency, OKI uses county level projections as prepared by the respective state data centers (Ohio Department of Development Office of Strategic Research,

Kentucky State Data Center and Indiana Business Research Center) as control totals. The most current projections (years 2005 to 2030) were released by the Ohio and Indiana state data centers in 2003 and the Kentucky State Data Center in 2004. Population projections at the zonal level are calculated by multiplying household size by the projected zonal households. Household size is factored so that, in each county, the sum of the zonal populations equals the control total.

### **Households**

**Base Year Data:** Household data for base year 2005 originates with the 2000 Census of Population and Housing. Utilizing the geographic information system ArcMap, household data at the zonal level for 2000 was derived from the area proportion allocation of block level households. Year 2000 household data was updated to 2005 with residential building permits issued between January 2000 and December 2004. The residential building locations were geocoded in ArcMap, then aggregated to the TAZs. The housing unit totals for each TAZ were converted to households by applying a vacancy rate, an adjustment for permitted but unbuilt units, and subtracting demolitions (where data was available). These households were then added to the year Census 2000 zonal household total to arrive at 2005 households for each TAZ.

**Future Year Data:** The preparation of household projections was accomplished by calculating the number of households for a projected county population using ratios of householders to total population by age specific cohorts derived from the 2000 Census for each analysis year. Disaggregation to TAZs was determined by historical trends, existing and future land use, topography, flood plain information, availability of land, local knowledge and other factors.

### **Household Vehicles**

**Base and Future Year Data:** Base and future year household vehicle data were obtained from the 2000 Census of Population and Housing. The 2000 Census is the only source of household vehicle data available at the block group level. Average vehicles per household were calculated for block groups then applied to the TAZs associated with each block group. The 2005, 2010, 2020 and 2030 vehicles per household level was held at the 2000 level based on the fact that, since 2002, the number of vehicles per household has exceeded the number of drivers per household.

### **Labor Force**

**Base and Future Year Data:** The OKI labor force is a function of the population as determined by a labor force participation ratio (the number of employed persons in the labor force per persons 16 and over). Household data for base year 2005 originates with the 2000 Census of Population and Housing. Utilizing the geographic information system ArcMap, household data at the zonal level for 2000 was derived from the area proportion allocation of block group level employed labor force. The labor force projections for 2005, 2010, 2020 and 2030 were based on the most recent projections of national labor force participation rates by age and sex cohorts from the U.S. Department of Labor, Bureau of Labor Statistics for each of those years. These rates were then applied to the projected county age/sex cohorts and adjusted to eliminate the unemployed to arrive at a county employed labor force control

total. Employed labor force at the zonal level is calculated by multiplying the labor force participation rate by the zonal population. The labor force participation rate is adjusted so that, in each county, the sum of the zonal labor force counts equals the control total.

### **Employment**

Base Year Data: Quarterly Census of Employment and Wages (QCEW or ES202) data for 2005 was utilized as the primary tool to calculate employment at the zonal level. Individual business records containing physical location, number of employees and SIC code were geocoded through ArcMap and aggregated to the TAZ level. This data set was supplemented by other sources of data to complete the commuting employment picture in the OKI region. Each zone's employment was divided according to the SIC code into three classes (retail, office, industrial) based upon the potential for generating trips.

Future Year Data: For future year employment projection, calculation was first made of the employment at the regional level. At the regional level, employment is a calculation of the region's employed labor force minus workers who live in the region but commute out to work, plus workers who live outside the region but commute in to work. The regional total was disaggregated first to the county level based on historic trends and expected changes in the county's share of the region's employment and then to the TAZ level. Disaggregation to TAZs was determined by historical trends, existing and future land use, topography, flood plain information, availability of land, local knowledge and other factors.

### **Area Type**

Base and Future Year Data: For each analysis year, each TAZ is assigned an area type designation as CBD, Urban, Suburban or Rural based on population and employment densities.

### **Model Calibration**

OKI's Travel Demand Model has been validated to observed traffic volumes for the model base year 2005. The modeling network encompasses the entire nonattainment area of Butler, Clermont, Hamilton and Warren Counties in Ohio, and the maintenance area Boone, Campbell and Kenton Counties in Kentucky. The modeling network also includes Greene, Miami and Montgomery counties in Ohio and Dearborn County, Indiana. The difference between estimated vehicle miles traveled (VMT) and 2005 observed VMT is less than 1%. A highway screenline analysis compares the screenline observed and simulated traffic volume discrepancies with the ODOT standard of maximum desirable deviation. The comparison shows that the model performs at a satisfactory level and all the errors were under the ODOT curve. Further information can be found in OKI's 2007 report, "*OKI/MVRPC Travel Demand Model Methodology/ Validation Report*". For the calibration, OKI used over 3000 traffic counts collected through 2006 by the Ohio Department of Transportation (ODOT), the Kentucky Transportation Cabinet, many county and local governments, transportation engineering consultants, and OKI. These traffic counts cover nearly 50% percent of the links in the OKI portion of the modeling network. The methodology provides consistency with past emission inventory and conformity analysis work performed by OKI.

### Local Inputs and Post-Model Processing

OKI incorporates a variety of sources of local data to both improve and confirm the accuracy of VMT, as well as other travel-related parameters. Free flow speeds used on the highway and transit networks are based on travel time studies performed locally. The OKI post-processing program, IMPACT, uses the loaded highway network to generate VMT by hour, VMT by speed distribution and VMT by facility type. These tables are then included as input into MOBILE6.2. Two separate sets of VMT tables are generated: one for the four Ohio counties plus Dearborn County Indiana, and a second for the three Kentucky counties. The VMT by hour tables utilize hourly traffic distribution and directional split factors for different roadway types as developed by OKI. The main source of the data was the permanent traffic counting stations located throughout the OKI region for the years of 1998-2002. This data was supplemented with data collected at coverage count stations (locations with counts taken on only one-two days). The stations were classified by area type: urban and rural, and functional classification: freeway, arterial and collector. Speeds representing various “loaded” conditions (with traffic volumes) are estimated using techniques from the 1997 Highway Capacity Manual. This permits the estimation of speeds as conditions vary from hour to hour on the different facility types throughout the region. The IMPACT program performs the appropriate summation by area and roadway type as well as regional totals. OKI has also developed seasonal conversion factors to adjust traffic volumes to summer conditions. The factors were derived from local data collected at permanent traffic counting stations during 1994-1997 utilizing the average daily traffic monthly conversion factors for June, July and August. Further information on OKI’s IMPACT program is documented in the report, *“Travel Demand Model Summary Reporting and Impact Summary Reporting: OKI/MVRPC Travel Demand Model User’s Guide”*, OKI 2003.

### Emission Factor Model

OKI’s conformity assessment utilized U.S.EPA’s emissions model MOBILE6.2 to develop emission factors for VOC’s, NO<sub>x</sub> and PM2.5. The MOBILE6.2 input file contains local parameters, developed through consultation with ODOT and OEPA, for temperature, fuel programs and fuel characteristics. The local parameters are combined with the VMT tables from the OKI Travel Demand Model to produce one set of emission factors measured in grams per mile for the appropriate calendar year (from 1952 to 2050). These emission factors are then multiplied by VMT. The methodologies incorporated into MOBILE6.2 for estimating emissions are based on methods and research conducted by U.S.EPA. OKI’s development of MOBILE6.2 input values were guided by the U.S.EPA’s document *“Technical Guidance on the Use of MOBILE6 for Emission Inventory Preparation”*, January 2002. MOBILE6.2 inputs and outputs are included in the appendices.

## **3. MOBILE SOURCE EMISSIONS INVENTORY**

The mobile source emission inventory for the entire ozone nonattainment area is provided in Table 1 below. At the discretion of the Indiana Department of Environmental Management, the Kentucky Division for Air Quality and the Ohio EPA, an additional safety margin may be added to the 2008 and 2018 inventory for the purpose of establishing a motor vehicle emission budget (MVEB). The addition of this safety margin would not interfere with the SIPs purpose. In the absence of an additional safety margin, the 2008 and 2018 inventories,

as presented below, will serve as the (MVEB) for transportation conformity.

**Table 1**  
Mobile Source Emissions Inventory for 9-county Cincinnati Ozone Nonattainment Area  
(tons per day)

	<b>2005</b>	<b>2008 MVEB</b>	<b>2018 MVEB</b>
<b>VOC</b>	68.28	55.53	31.87
<b>NO<sub>x</sub></b>	130.79	109.56	41.57



## **APPENDIX A**

### **MOBILE6.2 Input/Output Files for Indiana Portion of Nonattainment Area**

### VTM By Hour (INHVMT.D), all analysis years

#### VTM BY HOUR

0.0478	0.0719	0.0796	0.0666	0.0563	0.0532
0.0545	0.0543	0.0515	0.0523	0.0560	0.0565
0.0504	0.0377	0.0266	0.0209	0.0197	0.0171
0.0142	0.0156	0.0188	0.0224	0.0251	0.0310

### 2005 VMT by Speed Bin (INSVMT.D)

#### SPEED VMT

1	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0128	0.0095	0.0000	0.0000	0.0000	0.0000	0.9777
1	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0112	0.0083	0.0000	0.0000	0.0000	0.0000	0.9806
1	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0103	0.0076	0.0000	0.0000	0.0000	0.0000	0.9820
1	4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0103	0.0076	0.0000	0.0000	0.0000	0.0000	0.9821
1	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0074	0.0000	0.0000	0.0000	0.0000	0.9826
1	6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0107	0.0079	0.0000	0.0000	0.0000	0.0000	0.9814
1	7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0077	0.0000	0.0000	0.0000	0.0000	0.9820
1	8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0074	0.0000	0.0000	0.0000	0.0000	0.9826
1	9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0096	0.0071	0.0000	0.0000	0.0000	0.0000	0.9834
1	10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0092	0.0068	0.0000	0.0000	0.0000	0.0000	0.9840
1	11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0089	0.0066	0.0000	0.0000	0.0000	0.0000	0.9845
1	12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0074	0.0055	0.0000	0.0000	0.0000	0.0000	0.9871
1	13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0073	0.0054	0.0000	0.0000	0.0000	0.0000	0.9872
1	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0088	0.0065	0.0000	0.0000	0.0000	0.0000	0.9847
1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0089	0.0066	0.0000	0.0000	0.0000	0.0000	0.9845
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0085	0.0063	0.0000	0.0000	0.0000	0.0000	0.9853
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0095	0.0070	0.0000	0.0000	0.0000	0.0000	0.9835
1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083	0.0061	0.0000	0.0000	0.0000	0.0000	0.9856
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0098	0.0072	0.0000	0.0000	0.0000	0.0000	0.9830
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0109	0.0080	0.0000	0.0000	0.0000	0.0000	0.9811
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0077	0.0000	0.0000	0.0000	0.0000	0.9819
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0109	0.0081	0.0000	0.0000	0.0000	0.0000	0.9810
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0111	0.0082	0.0000	0.0000	0.0000	0.0000	0.9806
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0086	0.0000	0.0000	0.0000	0.0000	0.9798
2	1	0.0000	0.0000	0.0000	0.1740	0.0100	0.1011	0.0512	0.0854	0.5783	0.0000	0.0000	0.0000	0.0000
2	2	0.0000	0.0000	0.0000	0.1836	0.0102	0.1010	0.0509	0.0859	0.5685	0.0000	0.0000	0.0000	0.0000
2	3	0.0000	0.0000	0.0000	0.1909	0.0104	0.1015	0.0541	0.0836	0.5595	0.0000	0.0000	0.0000	0.0000
2	4	0.0000	0.0000	0.0000	0.2198	0.0106	0.0946	0.0463	0.0839	0.5449	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0000	0.0000	0.2268	0.0107	0.0939	0.0457	0.0838	0.5391	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0000	0.0000	0.2142	0.0104	0.0933	0.0458	0.0826	0.5537	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0000	0.0000	0.2342	0.0106	0.0908	0.0438	0.0822	0.5383	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0000	0.0000	0.2387	0.0108	0.0918	0.0442	0.0831	0.5314	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0000	0.2351	0.0108	0.0929	0.0449	0.0837	0.5326	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0000	0.2509	0.0110	0.0912	0.0435	0.0836	0.5198	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0000	0.0000	0.2384	0.0109	0.0942	0.0456	0.0848	0.5261	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0000	0.0000	0.2209	0.0108	0.0979	0.0481	0.0861	0.5361	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0000	0.2201	0.0111	0.1024	0.0506	0.0891	0.5267	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.2076	0.0110	0.1060	0.0530	0.0907	0.5318	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.2269	0.0112	0.1025	0.0505	0.0896	0.5192	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.2284	0.0111	0.1009	0.0496	0.0886	0.5213	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.2215	0.0108	0.0984	0.0484	0.0865	0.5343	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.2477	0.0112	0.0956	0.0461	0.0863	0.5131	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.2141	0.0099	0.0866	0.0420	0.0782	0.5692	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.2054	0.0099	0.0881	0.0431	0.0786	0.5749	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.2408	0.0111	0.0952	0.0461	0.0857	0.5212	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.2075	0.0107	0.1010	0.0502	0.0874	0.5432	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.2060	0.0108	0.1036	0.0517	0.0891	0.5388	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.1985	0.0105	0.1016	0.0508	0.0872	0.5513	0.0000	0.0000	0.0000	0.0000

### 2005 VMT by Facility (INFVMT.D)

#### VTM BY FACILITY

1	0.240	0.541	0.214	0.005
	0.262	0.518	0.215	0.005
	0.265	0.510	0.220	0.005
	0.263	0.495	0.237	0.005
	0.262	0.491	0.242	0.005
	0.259	0.503	0.233	0.005
	0.255	0.493	0.247	0.005
	0.254	0.490	0.252	0.004
	0.263	0.486	0.247	0.004
	0.265	0.474	0.257	0.004
	0.270	0.478	0.248	0.004
	0.305	0.465	0.227	0.004

```

0.293 0.470 0.233 0.004
0.259 0.499 0.238 0.004
0.250 0.493 0.253 0.004
0.263 0.485 0.248 0.004
0.260 0.494 0.242 0.004
0.276 0.466 0.254 0.004
0.299 0.481 0.215 0.005
0.283 0.497 0.215 0.005
0.251 0.487 0.257 0.005
0.243 0.514 0.239 0.005
0.231 0.521 0.244 0.005
0.234 0.526 0.235 0.005

```

...

Identical distribution for all veh. types with the exception of diesel transit buses

```

26 0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
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0.003 0.963 0.030 0.004
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0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004

```

## 2005 MOBILE6.2 Input File (IN.SCN)

```

* Mobile6 file for Dearborn County, IN
* created 6/7/06, ajr,pre 2006
***** Header Section *****
MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE         : in.rpt
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : inemiss.tbl
RUN DATA
***** Run Section *****
VMT BY HOUR          : INHVT.D
SPEED VMT            : INSVMT.D
VMT BY FACILITY      : INFVMT.D
*REG DIST            : INREG.D
EXPRESS HC AS VOC    :
EXPAND BUS EFS       :
***** Summer Scenario Section *****
SCENARIO RECORD      : Indiana Emissions - CY20xx

```

## 2005 MOBILE6.2 Output Report (IN.RPT)

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						



1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0095	0.0060	0.0000	0.0000	0.0000	0.0000	0.9845
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0090	0.0057	0.0000	0.0000	0.0000	0.0000	0.9852
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0101	0.0064	0.0000	0.0000	0.0000	0.0000	0.9834
1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0089	0.0056	0.0000	0.0000	0.0000	0.0000	0.9855
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0066	0.0000	0.0000	0.0000	0.0000	0.9829
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0073	0.0000	0.0000	0.0000	0.0000	0.9811
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0111	0.0070	0.0000	0.0000	0.0000	0.0000	0.9819
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0074	0.0000	0.0000	0.0000	0.0000	0.9810
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0119	0.0075	0.0000	0.0000	0.0000	0.0000	0.9806
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0124	0.0078	0.0000	0.0000	0.0000	0.0000	0.9798
2	1	0.0000	0.0000	0.0000	0.1625	0.0083	0.1086	0.0487	0.0317	0.6401	0.0000	0.0000	0.0000	0.0000	0.0000
2	2	0.0000	0.0000	0.0000	0.1718	0.0087	0.1081	0.0486	0.0317	0.6311	0.0000	0.0000	0.0000	0.0000	0.0000
2	3	0.0000	0.0000	0.0000	0.1781	0.0090	0.1079	0.0515	0.0287	0.6248	0.0000	0.0000	0.0000	0.0000	0.0000
2	4	0.0000	0.0000	0.0000	0.2060	0.0105	0.0985	0.0446	0.0300	0.6105	0.0000	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0000	0.0000	0.2123	0.0108	0.0971	0.0440	0.0297	0.6062	0.0000	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0000	0.0000	0.2001	0.0102	0.0970	0.0439	0.0295	0.6193	0.0000	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0000	0.0000	0.2191	0.0111	0.0930	0.0423	0.0288	0.6057	0.0000	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0000	0.0000	0.2230	0.0113	0.0937	0.0427	0.0290	0.6004	0.0000	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0000	0.2195	0.0111	0.0952	0.0433	0.0293	0.6015	0.0000	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0000	0.2350	0.0119	0.0925	0.0422	0.0289	0.5894	0.0000	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0000	0.0000	0.2224	0.0113	0.0965	0.0439	0.0296	0.5963	0.0000	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0000	0.0000	0.2049	0.0104	0.1013	0.0459	0.0304	0.6071	0.0000	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0000	0.2038	0.0104	0.1064	0.0481	0.0315	0.5999	0.0000	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.1920	0.0098	0.1112	0.0501	0.0324	0.6045	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.2104	0.0107	0.1063	0.0481	0.0315	0.5930	0.0000	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.2119	0.0108	0.1044	0.0472	0.0311	0.5946	0.0000	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.2063	0.0105	0.1023	0.0463	0.0307	0.6040	0.0000	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.2317	0.0118	0.0978	0.0445	0.0301	0.5841	0.0000	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.2013	0.0102	0.0897	0.0408	0.0280	0.6300	0.0000	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.1933	0.0098	0.0921	0.0417	0.0285	0.6345	0.0000	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.2269	0.0115	0.0985	0.0448	0.0303	0.5881	0.0000	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.1936	0.0098	0.1063	0.0480	0.0315	0.6108	0.0000	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.1917	0.0097	0.1092	0.0492	0.0321	0.6081	0.0000	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.1848	0.0094	0.1073	0.0483	0.0316	0.6186	0.0000	0.0000	0.0000	0.0000	0.0000

## 2008 VMT by Facility Type (INFVMT.D)

### VMT BY FACILITY

1	0.236	0.548	0.210	0.005
	0.258	0.525	0.211	0.005
	0.261	0.519	0.215	0.005
	0.260	0.505	0.230	0.005
	0.259	0.502	0.235	0.005
	0.255	0.514	0.226	0.005
	0.251	0.505	0.239	0.005
	0.250	0.502	0.243	0.004
	0.259	0.498	0.239	0.004
	0.262	0.486	0.248	0.004
	0.265	0.491	0.240	0.004
	0.299	0.478	0.220	0.004
	0.287	0.483	0.226	0.004
	0.253	0.512	0.231	0.004
	0.245	0.507	0.245	0.004
	0.257	0.499	0.240	0.004
	0.256	0.505	0.235	0.004
	0.273	0.478	0.246	0.004
	0.296	0.489	0.209	0.005
	0.280	0.505	0.210	0.005
	0.249	0.497	0.250	0.005
	0.239	0.524	0.233	0.005
	0.227	0.532	0.237	0.004
	0.230	0.536	0.229	0.005

...

Identical distribution for all veh. types with the exception of diesel transit buses

26	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004

```

0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.010 0.949 0.035 0.002
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
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0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004
0.003 0.963 0.030 0.004

```

### 2008 MOBILE6.2 Input File (IN.SCN)

```

* Mobile6 file for Dearborn County, IN
* created 4/9/07, ajr,post 2006
***** Header Section *****
MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE          : in.rpt
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : inemiss.tbl
RUN DATA
***** Run Section *****
VMT BY HOUR          : INHVM.T.D
SPEED VMT             : INSVMT.D
VMT BY FACILITY       : INFVMT.D
EXPAND BUS EFS        :
REBUILD EFFECTS      : 0.30
***** Summer Scenario Section *****
SCENARIO RECORD       : Indiana Emissions - CY20xx
CALENDAR YEAR         : 2008
EVALUATION MONTH      : 7
SEASON                : 1
MIN/MAX TEMP          : 61.0 95.0
FUEL PROGRAM          : 1
FUEL RVP              : 9.0
PARTICLE SIZE         : 2.5
PARTICULATE EF        : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
DIESEL SULFUR         : 43
***** Annual Scenario Section *****
SCENARIO RECORD       : Indiana Emissions - CY20xx
CALENDAR YEAR         : 2008
EVALUATION MONTH      : 7
MIN/MAX TEMP          : 47.0 64.0
FUEL PROGRAM          : 1
FUEL RVP              : 9.0
PARTICLE SIZE         : 2.5

```

2008 MOBILE6.2 Output Report (IN.RPT)

```
* Reading Hourly VMT distribution from the following external
* data file: INHVMT.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external
* data file: INSVMT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: INFVMT.D
```

[illegible]



\* Indiana Emissions - CY20xx

\* File 1, Run 1, Scenario 2.

\* #####

M616 Comment:  
User has supplied post-1999 sulfur levels.

\* Reading PM Gas Carbon ZML Levels  
\* from the external data file PMGZML.CSV

\* Reading PM Gas Carbon DR1 Levels  
\* from the external data file PMGDR1.CSV

\* Reading PM Gas Carbon DR2 Levels  
\* from the external data file PMGDR2.CSV

\* Reading PM Diesel Zero Mile Levels  
\* from the external data file PMDZML.CSV

\* Reading the First PM Deterioration Rates  
\* from the external data file PMDDR1.CSV

\* Reading the Second PM Deterioration Rates  
\* from the external data file PMDDR2.CSV

M 48 Warning:  
there are no sales for vehicle class HDGV8b

Calendar Year: 2008  
Month: July  
Altitude: Low  
Minimum Temperature: 47.0 (F)  
Maximum Temperature: 64.0 (F)  
Absolute Humidity: 75. grains/lb  
Nominal Fuel RVP: 9.0 psi  
Weathered RVP: 9.0 psi  
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No  
Evap I/M Program: No  
ATP Program: No  
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.3728	0.3705	0.1273		0.0359	0.0004	0.0019	0.0857	0.0055	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.875	0.966	1.596	1.127	1.294	0.310	0.594	0.503	2.17	0.990
Composite CO :	12.14	14.74	19.88	16.05	15.56	1.211	1.024	2.740	17.49	13.411
Composite NOX :	0.673	0.899	1.300	1.002	3.015	0.771	1.058	9.727	1.42	1.702
-----										
Veh. Type:	GasBUS	URBAN	SCHOOL							
	-----	-----	-----							
VMT Mix:	0.0002	0.0009	0.0017							
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	6.494	0.370	0.723							
Composite CO :	98.14	3.411	2.747							
Composite NOX :	8.564	13.231	11.908							
-----										

## 2018 VMT by Speed Bin (INSVMT.D)

SPEED VMT											
1	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0133	0.0082	0.0000	0.9784
1	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0092	0.0024	0.0072	0.0000	0.9812
1	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0086	0.0022	0.0066	0.0000	0.9826
1	4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0107	0.0066	0.0000	0.9826
1	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0064	0.0000	0.9831
1	6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0111	0.0069	0.0000	0.9820
1	7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0108	0.0067	0.0000	0.9825
1	8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0064	0.0000	0.9832
1	9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0061	0.0000	0.9839
1	10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0096	0.0059	0.0000	0.9845
1	11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0093	0.0057	0.0000	0.9850
1	12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0048	0.0000	0.9875
1	13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0077	0.0047	0.0000	0.9876
1	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0092	0.0057	0.0000	0.9852
1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0093	0.0057	0.0000	0.9850
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0088	0.0054	0.0000	0.9857
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0099	0.0061	0.0000	0.9840
1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0087	0.0053	0.0000	0.9860
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0102	0.0063	0.0000	0.9835
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.0070	0.0000	0.9817
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0108	0.0067	0.0000	0.9825
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0114	0.0070	0.0000	0.9816
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0072	0.0000	0.9812
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0121	0.0074	0.0000	0.9805
2	1	0.0000	0.0000	0.0000	0.1377	0.0065	0.1198	0.0460	0.6320	0.0000	0.0000
2	2	0.0000	0.0000	0.0000	0.1459	0.0069	0.1194	0.0367	0.6240	0.0000	0.0000
2	3	0.0000	0.0000	0.0000	0.1513	0.0072	0.1193	0.0492	0.6026	0.0000	0.0000
2	4	0.0000	0.0000	0.0000	0.1759	0.0083	0.1095	0.0555	0.5975	0.0000	0.0000
2	5	0.0000	0.0000	0.0000	0.1815	0.0086	0.1080	0.0425	0.6068	0.0000	0.0000

2	6	0.0000	0.0000	0.0000	0.1707	0.0081	0.1077	0.0525	0.0422	0.6188	0.0000	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0000	0.0000	0.1875	0.0089	0.1036	0.0507	0.0524	0.5969	0.0000	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0000	0.0000	0.1910	0.0090	0.1044	0.0511	0.0530	0.5915	0.0000	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0000	0.1879	0.0089	0.1061	0.0519	0.0418	0.6035	0.0000	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0000	0.2017	0.0095	0.1034	0.0507	0.0411	0.5935	0.0000	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0000	0.0000	0.1905	0.0090	0.1075	0.0526	0.0537	0.5867	0.0000	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0000	0.0000	0.1749	0.0083	0.1125	0.0548	0.0552	0.5943	0.0000	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0000	0.1739	0.0082	0.1181	0.0575	0.0456	0.5966	0.0000	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.1635	0.0077	0.1232	0.0598	0.0472	0.5985	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.1798	0.0085	0.1182	0.0575	0.0457	0.5903	0.0000	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.1811	0.0086	0.1161	0.0566	0.0450	0.5927	0.0000	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.1762	0.0083	0.1137	0.0554	0.0442	0.6023	0.0000	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.1988	0.0094	0.1092	0.0535	0.0430	0.5861	0.0000	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.1718	0.0081	0.0996	0.0487	0.0397	0.6321	0.0000	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.1648	0.0078	0.1022	0.0498	0.0405	0.6350	0.0000	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.1946	0.0092	0.1099	0.0537	0.0433	0.5892	0.0000	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.1649	0.0078	0.1179	0.0573	0.0455	0.6065	0.0000	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.1633	0.0077	0.1210	0.0588	0.0465	0.6027	0.0000	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.1572	0.0074	0.1188	0.0577	0.0457	0.6132	0.0000	0.0000	0.0000	0.0000	0.0000

### 2018 VMT by Facility Type (INFVMT.D)

#### VMT BY FACILITY

1	0.235	0.561	0.198	0.005
	0.257	0.539	0.199	0.005
	0.260	0.533	0.202	0.005
	0.260	0.522	0.214	0.005
	0.259	0.519	0.218	0.004
	0.255	0.531	0.210	0.005
	0.252	0.523	0.221	0.004
	0.251	0.520	0.225	0.004
	0.259	0.516	0.221	0.004
	0.263	0.505	0.229	0.004
	0.266	0.508	0.222	0.004
	0.298	0.493	0.204	0.004
	0.287	0.499	0.211	0.004
	0.252	0.527	0.217	0.004
	0.245	0.524	0.228	0.004
	0.257	0.515	0.224	0.004
	0.256	0.522	0.219	0.004
	0.274	0.495	0.227	0.004
	0.296	0.505	0.194	0.005
	0.280	0.521	0.195	0.005
	0.249	0.514	0.232	0.004
	0.238	0.540	0.218	0.004
	0.226	0.547	0.222	0.004
	0.229	0.552	0.215	0.005

...  
 Identical distribution for all veh. types with the exception of diesel transit buses

26	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.010	0.949	0.035	0.002
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004
	0.003	0.963	0.030	0.004

2018 MOBILE6.2 Input File (IN.SCN)

2018 MOBILE6.2 Output File (IN.RPT)

Mobile Source Emissions Inventory for the Cincinnati 8-hour Ozone Nonattainment Area, May 2007

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Nominal Fuel RVP: 9.0 psi  
 Weathered RVP: 9.0 psi  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No  
 Evap I/M Program: No  
 ATP Program: No  
 Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.2862	0.4338	0.1490		0.0363	0.0003	0.0022	0.0870	0.0052	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.403	0.522	0.874	0.612	0.556	0.076	0.252	0.304	2.14	0.530
Composite CO :	9.10	9.74	12.51	10.44	9.63	0.711	0.543	0.644	17.17	9.188
Composite NOX :	0.284	0.406	0.728	0.489	0.766	0.090	0.344	2.428	1.43	0.613
-----										
Veh. Type:	GasBUS	URBAN	SCHOOL							
	-----	-----	-----							
VMT Mix:	0.0001	0.0010	0.0019							
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	1.976	0.246	0.443							
Composite CO :	18.38	0.976	1.097							
Composite NOX :	3.597	3.786	5.388							
-----										

## **APPENDIX B**

### MOBILE6.2 Input/Output Files for Kentucky Portion of Nonattainment Area

### VTM By Hour (KYHVTM.D), all analysis years

#### VTM BY HOUR

0.0478	0.0719	0.0796	0.0666	0.0563	0.0532
0.0545	0.0543	0.0515	0.0523	0.0560	0.0565
0.0504	0.0377	0.0266	0.0209	0.0197	0.0171
0.0142	0.0156	0.0188	0.0224	0.0251	0.0310

### 2005 VMT by Speed Bin (KYSVMT.D)

#### SPEED VMT

1	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0128	0.0095	0.0000	0.0000	0.0000	0.0000	0.9777
1	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0112	0.0083	0.0000	0.0000	0.0000	0.0000	0.9806
1	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0103	0.0076	0.0000	0.0000	0.0000	0.0000	0.9820
1	4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0103	0.0076	0.0000	0.0000	0.0000	0.0000	0.9821
1	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0074	0.0000	0.0000	0.0000	0.0000	0.9826
1	6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0107	0.0079	0.0000	0.0000	0.0000	0.0000	0.9814
1	7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0077	0.0000	0.0000	0.0000	0.0000	0.9820
1	8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0074	0.0000	0.0000	0.0000	0.0000	0.9826
1	9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0096	0.0071	0.0000	0.0000	0.0000	0.0000	0.9834
1	10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0092	0.0068	0.0000	0.0000	0.0000	0.0000	0.9840
1	11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0089	0.0066	0.0000	0.0000	0.0000	0.0000	0.9845
1	12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0074	0.0055	0.0000	0.0000	0.0000	0.0000	0.9871
1	13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0073	0.0054	0.0000	0.0000	0.0000	0.0000	0.9872
1	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0088	0.0065	0.0000	0.0000	0.0000	0.0000	0.9847
1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0089	0.0066	0.0000	0.0000	0.0000	0.0000	0.9845
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0085	0.0063	0.0000	0.0000	0.0000	0.0000	0.9853
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0095	0.0070	0.0000	0.0000	0.0000	0.0000	0.9835
1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083	0.0061	0.0000	0.0000	0.0000	0.0000	0.9856
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0098	0.0072	0.0000	0.0000	0.0000	0.0000	0.9830
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0109	0.0080	0.0000	0.0000	0.0000	0.0000	0.9811
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0077	0.0000	0.0000	0.0000	0.0000	0.9819
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0109	0.0081	0.0000	0.0000	0.0000	0.0000	0.9810
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0111	0.0082	0.0000	0.0000	0.0000	0.0000	0.9806
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.0086	0.0000	0.0000	0.0000	0.0000	0.9798
2	1	0.0000	0.0000	0.0000	0.1740	0.0100	0.1011	0.0512	0.0854	0.5783	0.0000	0.0000	0.0000	0.0000
2	2	0.0000	0.0000	0.0000	0.1836	0.0102	0.1010	0.0509	0.0859	0.5685	0.0000	0.0000	0.0000	0.0000
2	3	0.0000	0.0000	0.0000	0.1909	0.0104	0.1015	0.0541	0.0836	0.5595	0.0000	0.0000	0.0000	0.0000
2	4	0.0000	0.0000	0.0000	0.2198	0.0106	0.0946	0.0463	0.0839	0.5449	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0000	0.0000	0.2268	0.0107	0.0939	0.0457	0.0838	0.5391	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0000	0.0000	0.2142	0.0104	0.0933	0.0458	0.0826	0.5537	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0000	0.0000	0.2342	0.0106	0.0908	0.0438	0.0822	0.5383	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0000	0.0000	0.2387	0.0108	0.0918	0.0442	0.0831	0.5314	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0000	0.2351	0.0108	0.0929	0.0449	0.0837	0.5326	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0000	0.2509	0.0110	0.0912	0.0435	0.0836	0.5198	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0000	0.0000	0.2384	0.0109	0.0942	0.0456	0.0848	0.5261	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0000	0.0000	0.2209	0.0108	0.0979	0.0481	0.0861	0.5361	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0000	0.2201	0.0111	0.1024	0.0506	0.0891	0.5267	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.2076	0.0110	0.1060	0.0530	0.0907	0.5318	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.2269	0.0112	0.1025	0.0505	0.0896	0.5192	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.2284	0.0111	0.1009	0.0496	0.0886	0.5213	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.2215	0.0108	0.0984	0.0484	0.0865	0.5343	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.2477	0.0112	0.0956	0.0461	0.0863	0.5131	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.2141	0.0099	0.0866	0.0420	0.0782	0.5692	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.2054	0.0099	0.0881	0.0431	0.0786	0.5749	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.2408	0.0111	0.0952	0.0461	0.0857	0.5212	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.2075	0.0107	0.1010	0.0502	0.0874	0.5432	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.2060	0.0108	0.1036	0.0517	0.0891	0.5388	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.1985	0.0105	0.1016	0.0508	0.0872	0.5513	0.0000	0.0000	0.0000	0.0000

### 2005 VMT by Facility (KYFVMT.D)

#### VTM BY FACILITY

1	0.483	0.366	0.118	0.034
	0.506	0.345	0.117	0.032
	0.513	0.345	0.110	0.032
	0.489	0.362	0.115	0.034
	0.471	0.376	0.116	0.036
	0.469	0.383	0.111	0.038
	0.454	0.393	0.115	0.039
	0.456	0.391	0.114	0.038
	0.471	0.381	0.112	0.037
	0.474	0.374	0.115	0.036
	0.488	0.367	0.109	0.036
	0.510	0.356	0.099	0.035

```

0.511 0.352 0.103 0.034
0.496 0.361 0.109 0.034
0.485 0.368 0.112 0.035
0.500 0.359 0.107 0.034
0.524 0.340 0.104 0.033
0.553 0.315 0.103 0.030
0.560 0.317 0.091 0.031
0.538 0.330 0.099 0.032
0.498 0.343 0.127 0.031
0.477 0.369 0.120 0.034
0.462 0.379 0.123 0.035
0.459 0.386 0.119 0.036

```

...

Identical distribution for all veh. types with the exception of diesel transit buses

```

26 0.186 0.772 0.023 0.019
0.186 0.772 0.023 0.019
0.186 0.772 0.023 0.019
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.186 0.772 0.023 0.019
0.186 0.772 0.023 0.019
0.186 0.772 0.023 0.019
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
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0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008
0.042 0.924 0.025 0.008

```

### 2005 MOBILE6.2 Input File (KY.SCN)

\* Mobile6 file for Boone, Campbell and Kenton counties  
 \* pre 2006 analysis years, includes annual scenario  
 \* created 10/12/05,AJR

\*\*\*\*\* Header Section \*\*\*\*\*

```

MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE          : KY.RPT
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111
DAILY OUTPUT         :
EMISSIONS TABLE     : kyemiss.tb1
RUN DATA

```

\*\*\*\*\* Run Section \*\*\*\*\*

```

> post 1999, KY counties of Boone, Campbell and Kenton
*REG DIST           : KYREG.D

```



```

VMT BY HOUR          : KYHVM.T.D
SPEED VMT            : KYSVMT.D
VMT BY FACILITY      : KYFVMT.D
EXPRESS HC AS VOC    :
I/M PROGRAM          : 1 1999 2005 2 T/O IDLE
I/M MODEL YEARS      : 1 1968 2005
I/M VEHICLES         : 1 22222 22211111 1
I/M STRINGENCY       : 1 20.0
I/M COMPLIANCE       : 1 99.0
I/M WAIVER RATES     : 1 18.0 10.0
I/M PROGRAM          : 2 1999 2005 2 T/O FP & GC
I/M MODEL YEARS      : 2 1981 2005
I/M VEHICLES         : 2 22222 11111111 1
I/M STRINGENCY       : 2 20.0
I/M COMPLIANCE       : 2 99.0
I/M WAIVER RATES     : 2 18.0 10.0
ANTI-TAMP PROGR      :
99 75 50 22222 22211111 1 12 099. 22222222
STAGE II REFUELING   :
  99 2 86. 86.
EXPAND BUS EFS       :
***** Summer Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2005
EVALUATION MONTH     : 7
FUEL RVP             : 7.8
FUEL PROGRAM         : 2 N
PARTICLE SIZE        : 2.5
MIN/MAX TEMP         : 66.0 89.0
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV
PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 323
***** Annual Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2005
EVALUATION MONTH     : 7
FUEL RVP             : 9.0
FUEL PROGRAM         : 2 N
PARTICLE SIZE        : 2.5
MIN/MAX TEMP         : 47.0 64.0
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV
PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 324

***** END OF RUN *****
END OF RUN

```

## 2005 MOBILE6.2 Output Report (KY.RPT)

```

*****
* MOBILE6.2.03 (24-Sep-2003) *
* Input file: KY.SCN (file 2, run 1). *
*****
* post 1999, KY counties of Boone, Campbell and Kenton

* Reading Hourly VMT distribution from the following external
* data file: KYHVM.T.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external
* data file: KYSVMT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: KYFVMT.D

  Reading User Supplied ROADWAY VMT Factors
  M601 Comment:
    User has enabled STAGE II REFUELING.

```

```

* #####
* KY EMISSIONS - CY20xx

* File 2, Run 1, Scenario 1.
* #####
M616 Comment:
    User has supplied post-1999 sulfur levels.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
*** I/M credits for Tech1&2 vehicles were read from the following external
data file: TECH12.D
M 48 Warning:
    there are no sales for vehicle class HDGV8b

        Calendar Year: 2005
            Month: July
            Altitude: Low
        Minimum Temperature: 66.0 (F)
        Maximum Temperature: 89.0 (F)
        Absolute Humidity: 75. grains/lb
        Fuel Sulfur Content: 90. ppm

        Exhaust I/M Program: Yes
        Evap I/M Program: Yes
        ATP Program: Yes
        Reformulated Gas: Yes

        Vehicle Type:      LDGV      LDGT12      LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
        GVWR:              <6000    >6000      (All)
VMT Distribution: 0.4158  0.3387  0.1165      0.0360  0.0006  0.0019  0.0849  0.0057  1.0000

-----
Composite Emission Factors (g/mi):
Composite VOC : 0.841  0.872  1.384  1.003  1.166  0.558  0.772  0.508  2.17  0.906
Composite CO : 10.21  11.89  15.36  12.78  13.88  1.570  1.372  3.049  15.91  10.916
Composite NOX : 0.916  1.097  1.412  1.177  4.467  1.574  1.638  13.768  1.34  2.258
-----
        Veh. Type:      GasBUS      URBAN      SCHOOL
VMT Mix: 0.0003  0.0009  0.0016
-----
Composite Emission Factors (g/mi):
Composite VOC : 5.600  0.556  0.688
Composite CO : 94.64  4.268  2.654
Composite NOX : 8.895  16.361  14.725
-----

* #####
* KY EMISSIONS - CY20xx

* File 2, Run 1, Scenario 2.
* #####
M616 Comment:
    User has supplied post-1999 sulfur levels.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
    there are no sales for vehicle class HDGV8b

        Calendar Year: 2005
            Month: July
            Altitude: Low
        Minimum Temperature: 47.0 (F)
        Maximum Temperature: 64.0 (F)
        Absolute Humidity: 75. grains/lb
        Fuel Sulfur Content: 90. ppm

```

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:										
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.4158	0.3387	0.1165		0.0360	0.0006	0.0019	0.0849	0.0057	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.836	0.913	1.477	1.058	1.076	0.558	0.772	0.508	2.06	0.925
Composite CO :	13.44	16.14	19.94	17.11	14.09	1.570	1.372	3.049	14.62	14.232
Composite NOX :	0.930	1.165	1.504	1.252	4.590	1.574	1.638	13.768	1.56	2.303
-----										
Veh. Type:	GasBUS	URBAN	SCHOOL							
-----	-----	-----	-----							
VMT Mix:	0.0003	0.0009	0.0016							
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	5.145	0.556	0.688							
Composite CO :	87.55	4.268	2.654							
Composite NOX :	9.343	16.361	14.725							
-----										

## 2008 VMT by Speed bin (KYSVMT.D)

SPEED VMT										
1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0029	0.0222	0.0190	0.0587
1 2	0.0000	0.0046	0.0000	0.0000	0.0013	0.0002	0.0060	0.0124	0.0154	0.0600
1 3	0.0000	0.0039	0.0005	0.0010	0.0020	0.0013	0.0080	0.0300	0.0162	0.0675
1 4	0.0000	0.0000	0.0000	0.0015	0.0012	0.0044	0.0094	0.0100	0.0182	0.0667
1 5	0.0000	0.0000	0.0000	0.0000	0.0007	0.0020	0.0070	0.0159	0.0225	0.0658
1 6	0.0000	0.0000	0.0000	0.0000	0.0007	0.0003	0.0085	0.0170	0.0227	0.0653
1 7	0.0000	0.0000	0.0000	0.0007	0.0003	0.0029	0.0093	0.0147	0.0217	0.0742
1 8	0.0000	0.0000	0.0000	0.0007	0.0003	0.0029	0.0092	0.0138	0.0224	0.0740
1 9	0.0000	0.0000	0.0000	0.0000	0.0007	0.0021	0.0062	0.0166	0.0204	0.0690
1 10	0.0000	0.0000	0.0000	0.0000	0.0007	0.0020	0.0060	0.0161	0.0198	0.0676
1 11	0.0000	0.0000	0.0000	0.0006	0.0003	0.0026	0.0077	0.0126	0.0198	0.0678
1 12	0.0000	0.0000	0.0000	0.0006	0.0003	0.0024	0.0072	0.0119	0.0186	0.0673
1 13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0055	0.0143	0.0182	0.0617
1 14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0192	0.0192	0.0564
1 15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0212	0.0202	0.0566
1 16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0203	0.0193	0.0553
1 17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0183	0.0175	0.0516
1 18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0161	0.0154	0.0478
1 19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0166	0.0158	0.0502
1 20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0175	0.0167	0.0526
1 21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0183	0.0174	0.0539
1 22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0208	0.0198	0.0581
1 23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0219	0.0208	0.0593
1 24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0227	0.0216	0.0608
2 1	0.0000	0.0000	0.0000	0.1412	0.0944	0.0761	0.2304	0.1999	0.2254	0.0326
2 2	0.0000	0.0000	0.0001	0.1508	0.1074	0.0991	0.2065	0.1838	0.2203	0.0321
2 3	0.0000	0.0008	0.0046	0.1490	0.1151	0.1069	0.2119	0.1683	0.2109	0.0324
2 4	0.0000	0.0003	0.0007	0.1549	0.1104	0.0939	0.2085	0.1874	0.2111	0.0328
2 5	0.0000	0.0000	0.0003	0.1486	0.1048	0.0791	0.2162	0.1986	0.2195	0.0330
2 6	0.0000	0.0000	0.0003	0.1422	0.0963	0.0771	0.2170	0.2082	0.2251	0.0337
2 7	0.0000	0.0001	0.0009	0.1467	0.1021	0.0824	0.2104	0.2037	0.2201	0.0337
2 8	0.0000	0.0003	0.0007	0.1471	0.1025	0.0839	0.2094	0.2051	0.2176	0.0335
2 9	0.0000	0.0000	0.0003	0.1460	0.0989	0.0775	0.2176	0.2050	0.2212	0.0334
2 10	0.0000	0.0000	0.0003	0.1519	0.1070	0.0753	0.2134	0.2027	0.2165	0.0330
2 11	0.0000	0.0001	0.0008	0.1479	0.1031	0.0840	0.2113	0.2018	0.2180	0.0331
2 12	0.0000	0.0001	0.0009	0.1401	0.0936	0.0867	0.2169	0.2046	0.2236	0.0334
2 13	0.0000	0.0000	0.0000	0.1418	0.0953	0.0753	0.2189	0.2141	0.2221	0.0326
2 14	0.0000	0.0000	0.0000	0.1414	0.0945	0.0701	0.2273	0.2130	0.2217	0.0321
2 15	0.0000	0.0000	0.0000	0.1453	0.0971	0.0644	0.2263	0.2158	0.2189	0.0322
2 16	0.0000	0.0000	0.0000	0.1442	0.0964	0.0631	0.2257	0.2180	0.2201	0.0325
2 17	0.0000	0.0000	0.0000	0.1455	0.0972	0.0638	0.2257	0.2151	0.2201	0.0327
2 18	0.0000	0.0000	0.0000	0.1544	0.1032	0.0617	0.2234	0.2124	0.2128	0.0321
2 19	0.0000	0.0000	0.0000	0.1425	0.0952	0.0590	0.2229	0.2198	0.2261	0.0345
2 20	0.0000	0.0000	0.0000	0.1441	0.0963	0.0618	0.2242	0.2142	0.2252	0.0342
2 21	0.0000	0.0000	0.0000	0.1638	0.1095	0.0660	0.2245	0.1987	0.2062	0.0313
2 22	0.0000	0.0000	0.0000	0.1480	0.0989	0.0686	0.2281	0.2061	0.2183	0.0321
2 23	0.0000	0.0000	0.0000	0.1471	0.0983	0.0698	0.2290	0.2059	0.2182	0.0318
2 24	0.0000	0.0000	0.0000	0.1426	0.0953	0.0686	0.2288	0.2095	0.2226	0.0325

## 2008 VMT by Facility Type (KYFVMT.D)

VMT BY FACILITY				
1	0.448	0.369	0.153	0.030
	0.469	0.351	0.152	0.028
	0.479	0.347	0.145	0.029
	0.456	0.362	0.152	0.031
	0.440	0.374	0.154	0.032

• • •

[illegible]

```

* Mobile6 file for Boone, Campbell and Kenton counties
* post 2005 analysis years, includes annual scenario
* created 4/9/07,AJR, post 2006
***** Header Section *****
MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE         : KY.RPT
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : kyemiss.tbl
RUN DATA
***** Run Section *****
VMT BY HOUR          : KYHVM.T.D
SPEED VMT            : KYSVMT.D

```

```

VMT BY FACILITY      : KYFVMT.D
STAGE II REFUELING   :
99 2 86. 86.
EXPAND BUS EFS       :
REBUILD EFFECTS      : 0.30
***** Summer Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2008
EVALUATION MONTH     : 7
FUEL RVP              : 7.8
FUEL PROGRAM         : 2 N
PARTICLE SIZE        : 2.5
MIN/MAX TEMP         : 61.0 95.0
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** Annual Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2008
EVALUATION MONTH     : 7
FUEL RVP              : 9.0
FUEL PROGRAM         : 2 N
PARTICLE SIZE        : 2.5
MIN/MAX TEMP         : 47.0 64.0
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** END OF RUN *****
END OF RUN

```

## 2008 MOBILE6.2 Output Report (KY.RPT)

```

*****
* MOBILE6.2.03 (24-Sep-2003) *
* Input file: KY.SCN (file 2, run 1). *
*****

* Reading Hourly VMT distribution from the following external
* data file: KYHVT.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external
* data file: KYSVMT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: KYFVMT.D

  Reading User Supplied ROADWAY VMT Factors
  M601 Comment:
    User has enabled STAGE II REFUELING.

* # # # # #
* KY EMISSIONS - CY20xx

* File 2, Run 1, Scenario 1.
* # # # # #
  M616 Comment:
    User has supplied post-1999 sulfur levels.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
    there are no sales for vehicle class HDGV8b
HDDV DEFEAT DEVICE EFFECTS ARE PRESENT. THE REBUILD FRACTION IS 0.30.

      Calendar Year: 2008
      Month: July
      Altitude: Low
      Minimum Temperature: 61.0 (F)
      Maximum Temperature: 95.0 (F)
      Absolute Humidity: 75. grains/lb
      Fuel Sulfur Content: 30. ppm

      Exhaust I/M Program: No
      Evap I/M Program: No
      ATP Program: No
      Reformulated Gas: Yes

      Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
      GVWR: <6000 >6000 (All)
      VMT Distribution: 0.3728 0.3705 0.1273 ----- 0.0359 0.0004 0.0019 0.0857 0.0055 1.0000

```

Veh. Type:	GasBUS	URBAN	SCHOOL
	-----	-----	-----
VMT Mix:	0.0002	0.0009	0.0017

```

* #####
* KY EMISSIONS - CY20xx
*
* File 2, Run 1, Scenario 2.
* #####
M616 Comment:
    User has supplied post-1999 sulfur levels.
*
* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV
*
* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV
*
* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV
*
* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV
*
* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV
*
* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
    there are no sales for vehicle class HDGV8B

```

```

Calendar Year: 2008
Month: July
Altitude: Low
Minimum Temperature: 47.0 (F)
Maximum Temperature: 64.0 (F)
Absolute Humidity: 75. grains/lb
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: Yes

```

Composite Emission Factors (g/mi):										
Composite VOC :	0.728	0.794	1.293	0.922	0.902	0.288	0.549	0.447	2.09	0.814
Composite CO :	11.86	14.16	18.66	15.31	12.54	1.136	0.962	2.473	15.09	12.793
Composite NOX :	0.686	0.913	1.316	1.016	3.140	0.819	1.123	10.606	1.53	1.794

Veh. Type:	GasBUS	URBAN	SCHOOL
	-----	-----	-----
VMT Mix:	0.0002	0.0009	0.0017

Composite Emission Factors (g/mi):			
Composite VOC :	4.835	0.373	0.642
Composite CO :	78.32	3.472	2.475
Composite NOX :	8.929	13.966	12.693

1	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0025	0.0201	0.0192	0.0538	0.0147	0.0578	0.0238	0.8065	
1	2	0.0010	0.0030	0.0007	0.0000	0.0014	0.0010	0.0070	0.0095	0.0156	0.0589	0.0078	0.0620	0.0867	0.7453
1	3	0.0008	0.0034	0.0015	0.0010	0.0021	0.0046	0.0050	0.0160	0.0180	0.0826	0.0181	0.1211	0.0878	0.6386
1	4	0.0000	0.0000	0.0014	0.0014	0.0048	0.0042	0.0067	0.0094	0.0185	0.0605	0.0036	0.0644	0.0950	0.7302
1	5	0.0000	0.0000	0.0000	0.0006	0.0006	0.0036	0.0088	0.0117	0.0215	0.0600	0.0090	0.0602	0.0283	0.7957
1	6	0.0000	0.0000	0.0000	0.0006	0.0007	0.0037	0.0091	0.0117	0.0227	0.0603	0.0093	0.0611	0.0240	0.7968
1	7	0.0000	0.0000	0.0007	0.0007	0.0023	0.0038	0.0087	0.0125	0.0247	0.0614	0.0067	0.0626	0.0240	0.7919
1	8	0.0000	0.0000	0.0007	0.0007	0.0023	0.0048	0.0075	0.0131	0.0216	0.0649	0.0048	0.0623	0.0241	0.7931
1	9	0.0000	0.0000	0.0000	0.0006	0.0007	0.0029	0.0090	0.0120	0.0204	0.0616	0.0093	0.0606	0.0243	0.7986
1	10	0.0000	0.0000	0.0000	0.0006	0.0006	0.0028	0.0088	0.0117	0.0198	0.0608	0.0090	0.0597	0.0288	0.7974
1	11	0.0000	0.0000	0.0006	0.0006	0.0020	0.0034	0.0069	0.0116	0.0196	0.0607	0.0058	0.0586	0.0364	0.7937
1	12	0.0000	0.0000	0.0005	0.0006	0.0019	0.0032	0.0065	0.0103	0.0190	0.0629	0.0040	0.0632	0.0689	0.7589
1	13	0.0000	0.0000	0.0000	0.0000	0.0005	0.0006	0.0088	0.0108	0.0176	0.0599	0.0085	0.0569	0.0289	0.8076
1	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0023	0.0175	0.0194	0.0520	0.0169	0.0571	0.0247	0.8102
1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0208	0.0204	0.0505	0.0182	0.0580	0.0249	0.8073
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0199	0.0195	0.0502	0.0174	0.0568	0.0251	0.8112
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0180	0.0177	0.0487	0.0161	0.0538	0.0256	0.8200

1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0159	0.0156	0.0473	0.0140	0.0507	0.0262	0.8303
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0163	0.0160	0.0491	0.0150	0.0519	0.0256	0.8261
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0173	0.0169	0.0504	0.0162	0.0536	0.0251	0.8205
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0180	0.0176	0.0509	0.0166	0.0547	0.0249	0.8172
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0204	0.0200	0.0523	0.0188	0.0582	0.0243	0.8059
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0215	0.0210	0.0525	0.0196	0.0594	0.0242	0.8018
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0223	0.0218	0.0540	0.0195	0.0606	0.0240	0.7977
2	1	0.0000	0.0000	0.0000	0.6080	0.0379	0.0437	0.1045	0.0928	0.0974	0.0156	0.0000	0.0000	0.0000	0.0000
2	2	0.0002	0.0002	0.0014	0.6238	0.0474	0.0533	0.0838	0.0818	0.0930	0.0151	0.0000	0.0000	0.0000	0.0000
2	3	0.0003	0.0007	0.0058	0.6215	0.0502	0.0644	0.0806	0.0680	0.0931	0.0155	0.0000	0.0000	0.0000	0.0000
2	4	0.0003	0.0001	0.0028	0.6318	0.0476	0.0509	0.0855	0.0754	0.0900	0.0155	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0003	0.0001	0.6267	0.0447	0.0456	0.0913	0.0844	0.0911	0.0157	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0003	0.0001	0.6130	0.0411	0.0463	0.0947	0.0927	0.0955	0.0164	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0004	0.0004	0.6223	0.0442	0.0479	0.0929	0.0832	0.0925	0.0162	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0004	0.0004	0.6231	0.0461	0.0474	0.0927	0.0817	0.0922	0.0161	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0003	0.0002	0.6211	0.0423	0.0458	0.0919	0.0901	0.0923	0.0161	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0003	0.0001	0.6338	0.0446	0.0431	0.0886	0.0854	0.0884	0.0156	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0004	0.0004	0.6248	0.0456	0.0470	0.0925	0.0821	0.0914	0.0159	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0003	0.0004	0.6077	0.0423	0.0519	0.0979	0.0865	0.0965	0.0165	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0001	0.0002	0.6119	0.0393	0.0433	0.0983	0.0965	0.0944	0.0159	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.6104	0.0382	0.0377	0.1045	0.0989	0.0948	0.0156	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.6189	0.0385	0.0334	0.1032	0.0986	0.0919	0.0155	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.6174	0.0384	0.0328	0.1031	0.1001	0.0925	0.0157	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.6194	0.0385	0.0330	0.1029	0.0982	0.0923	0.0157	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.6363	0.0396	0.0309	0.0982	0.0937	0.0864	0.0150	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.6149	0.0382	0.0309	0.1022	0.1017	0.0955	0.0167	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.6171	0.0384	0.0322	0.1027	0.0984	0.0949	0.0164	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.6508	0.0405	0.0318	0.0964	0.0847	0.0819	0.0140	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.6224	0.0387	0.0352	0.1040	0.0931	0.0914	0.0152	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.6206	0.0386	0.0359	0.1048	0.0933	0.0917	0.0151	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.6124	0.0381	0.0359	0.1064	0.0967	0.0949	0.0157	0.0000	0.0000	0.0000	0.0000

## 2018 VMT by Facility Type (KYFVMT.D)

### VMT BY FACILITY

1	0.277	0.233	0.472	0.018
	0.288	0.222	0.473	0.017
	0.301	0.222	0.459	0.018
	0.278	0.224	0.480	0.018
	0.267	0.229	0.484	0.019
	0.272	0.236	0.471	0.020
	0.258	0.236	0.485	0.021
	0.260	0.235	0.484	0.021
	0.271	0.232	0.477	0.020
	0.268	0.225	0.488	0.019
	0.283	0.226	0.471	0.020
	0.311	0.227	0.442	0.020
	0.307	0.224	0.450	0.019
	0.292	0.229	0.460	0.019
	0.280	0.228	0.473	0.019
	0.294	0.225	0.462	0.019
	0.312	0.218	0.452	0.018
	0.327	0.203	0.454	0.017
	0.349	0.210	0.422	0.018
	0.325	0.215	0.441	0.018
	0.268	0.208	0.508	0.016
	0.268	0.228	0.486	0.018
	0.257	0.232	0.492	0.018
	0.260	0.237	0.483	0.019

...

Identical distribution for all veh. types with the exception of diesel transit buses

26	0.213	0.735	0.032	0.019
	0.213	0.735	0.032	0.019
	0.213	0.735	0.032	0.019
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009

```

0.057 0.897 0.036 0.009
0.213 0.735 0.032 0.019
0.213 0.735 0.032 0.019
0.213 0.735 0.032 0.019
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009

```

## 2018 MOBILE6.2 Input File (KY.SCN)

```

* Mobile6 file for Boone, Campbell and Kenton counties
* post 2005 analysis years, includes annual scenario
* created 4/9/07,AJR, post 2006
***** Header Section *****
MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE         : KY.RPT
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : kyemiss.tbl
RUN DATA
***** Run Section *****
VMT BY HOUR          : KYHVT.D
SPEED VMT            : KYSVT.D
VMT BY FACILITY      : KYFVT.D
STAGE II REFUELING   :
99 2 86. 86.
EXPAND BUS EFS       :
REBUILD EFFECTS      : 0.30
***** Summer Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2018
EVALUATION MONTH     : 7
FUEL RVP              : 7.8
FUEL PROGRAM          : 2 N
PARTICLE SIZE         : 2.5
MIN/MAX TEMP         : 61.0 95.0
PARTICULATE EF        : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** Annual Scenario Section *****
SCENARIO RECORD      : KY EMISSIONS - CY20xx
CALENDAR YEAR        : 2018
EVALUATION MONTH     : 7
FUEL RVP              : 9.0
FUEL PROGRAM          : 2 N
PARTICLE SIZE         : 2.5
MIN/MAX TEMP         : 47.0 64.0
PARTICULATE EF        : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** END OF RUN *****
END OF RUN

```

## 2018 MOBILE6.2 Output File (KY.RPT)

```

*****
* MOBILE6.2.03 (24-Sep-2003)
* Input file: KY.SCN (file 2, run 1).
*****

* Reading Hourly VMT distribution from the following external
* data file: KYHVT.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external
* data file: KYSVT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: KYFVT.D

```



```

Reading User Supplied ROADWAY VMT Factors
M601 Comment:
    User has enabled STAGE II REFUELING.

* # # # # #
* KY EMISSIONS - CY20xx

* File 2, Run 1, Scenario 1.
* # # # # #
M616 Comment:
    User has supplied post-1999 sulfur levels.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
    there are no sales for vehicle class HDGV8b
M 48 Warning:
    there are no sales for vehicle class LDDT12
HDDV DEFEAT DEVICE EFFECTS ARE PRESENT. THE REBUILD FRACTION IS 0.30.

    Calendar Year: 2018
    Month: July
    Altitude: Low
    Minimum Temperature: 61.0 (F)
    Maximum Temperature: 95.0 (F)
    Absolute Humidity: 75. grains/lb
    Fuel Sulfur Content: 30. ppm

    Exhaust I/M Program: No
    Evap I/M Program: No
    ATP Program: No
    Reformulated Gas: Yes

    Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
    GVWR: <6000 >6000 (All)
    VMT Distribution: 0.2862 0.4338 0.1490 0.0363 0.0003 0.0022 0.0870 0.0052 1.0000

Composite Emission Factors (g/mi):
Composite VOC : 0.406 0.505 0.838 0.590 0.583 0.090 0.297 0.389 2.63 0.530
Composite CO : 6.03 6.79 8.93 7.34 10.61 0.866 0.657 0.859 21.30 6.576
Composite NOX : 0.307 0.399 0.708 0.478 0.705 0.095 0.363 2.528 1.13 0.619

    Veh. Type: GasBUS URBAN SCHOOL
    VMT Mix: 0.0001 0.0010 0.0019

Composite Emission Factors (g/mi):
Composite VOC : 1.981 0.319 0.567
Composite CO : 19.54 1.380 1.462
Composite NOX : 3.310 4.427 5.711

* # # # # #
* KY EMISSIONS - CY20xx

* File 2, Run 1, Scenario 2.
* # # # # #
M616 Comment:
    User has supplied post-1999 sulfur levels.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
    there are no sales for vehicle class HDGV8b
M 48 Warning:
    there are no sales for vehicle class LDDT12

    Calendar Year: 2018

```

Month: July  
 Altitude: Low  
 Minimum Temperature: 47.0 (F)  
 Maximum Temperature: 64.0 (F)  
 Absolute Humidity: 75. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No  
 Evap I/M Program: No  
 ATP Program: No  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDV	LDLT	HDLV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.2862	0.4338	0.1490		0.0363	0.0003	0.0022	0.0870	0.0052	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.399	0.504	0.839	0.590	0.537	0.090	0.297	0.389	2.41	0.525
Composite CO :	8.77	9.33	11.89	9.98	11.60	0.866	0.657	0.859	18.01	8.920
Composite NOX :	0.285	0.408	0.728	0.490	0.718	0.095	0.363	2.528	1.33	0.621
-----										
Veh. Type:	GasBUS	URBAN	SCHOOL							
VMT Mix:	0.0001	0.0010	0.0019							
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	1.806	0.319	0.567							
Composite CO :	21.36	1.380	1.462							
Composite NOX :	3.371	4.427	5.711							
-----										

## **APPENDIX C**

### **MOBILE6.2 Input/Output Files for the OKI's Ohio Portion of Nonattainment Area**

### VTM By Hour (OHHVMT.D), all analysis years

#### VTM BY HOUR

0.0478	0.0719	0.0796	0.0666	0.0563	0.0532
0.0545	0.0543	0.0515	0.0523	0.0560	0.0565
0.0504	0.0377	0.0266	0.0209	0.0197	0.0171
0.0142	0.0156	0.0188	0.0224	0.0251	0.0310

### 2005 VMT by Speed Bin (OHSVMT.D)

#### SPEED VMT

1	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0007	0.0179	0.0228	0.0389	0.0463	0.0969	0.0225	0.7538
1	2	0.0000	0.0000	0.0002	0.0000	0.0000	0.0011	0.0067	0.0106	0.0208	0.0390	0.0379	0.0981	0.0227	0.7629
1	3	0.0002	0.0000	0.0008	0.0015	0.0014	0.0026	0.0076	0.0142	0.0177	0.0341	0.0399	0.1095	0.0712	0.6992
1	4	0.0000	0.0002	0.0000	0.0012	0.0020	0.0023	0.0075	0.0120	0.0226	0.0389	0.0379	0.0984	0.0226	0.7546
1	5	0.0000	0.0002	0.0000	0.0000	0.0004	0.0026	0.0079	0.0126	0.0258	0.0414	0.0415	0.0975	0.0224	0.7476
1	6	0.0000	0.0002	0.0000	0.0000	0.0002	0.0024	0.0075	0.0136	0.0267	0.0427	0.0431	0.0975	0.0223	0.7438
1	7	0.0000	0.0002	0.0000	0.0002	0.0019	0.0022	0.0092	0.0145	0.0274	0.0425	0.0435	0.0976	0.0221	0.7385
1	8	0.0000	0.0002	0.0000	0.0006	0.0020	0.0018	0.0095	0.0144	0.0272	0.0418	0.0427	0.0977	0.0222	0.7399
1	9	0.0000	0.0002	0.0000	0.0000	0.0004	0.0025	0.0077	0.0134	0.0265	0.0414	0.0418	0.0976	0.0224	0.7461
1	10	0.0000	0.0002	0.0000	0.0000	0.0004	0.0024	0.0077	0.0128	0.0257	0.0404	0.0408	0.0976	0.0225	0.7496
1	11	0.0000	0.0002	0.0000	0.0002	0.0016	0.0019	0.0081	0.0128	0.0240	0.0383	0.0389	0.0980	0.0222	0.7537
1	12	0.0000	0.0002	0.0000	0.0003	0.0019	0.0014	0.0077	0.0122	0.0231	0.0369	0.0371	0.0988	0.0227	0.7578
1	13	0.0000	0.0000	0.0002	0.0000	0.0000	0.0005	0.0055	0.0133	0.0228	0.0379	0.0373	0.0981	0.0224	0.7621
1	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.0182	0.0229	0.0346	0.0442	0.0974	0.0228	0.7591
1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0195	0.0240	0.0345	0.0461	0.0975	0.0228	0.7555
1	16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0189	0.0230	0.0334	0.0445	0.0974	0.0229	0.7599
1	17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0170	0.0206	0.0319	0.0414	0.0971	0.0232	0.7688
1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0149	0.0181	0.0292	0.0373	0.0969	0.0236	0.7800
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0154	0.0187	0.0309	0.0391	0.0969	0.0234	0.7756
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0163	0.0198	0.0328	0.0415	0.0969	0.0231	0.7695
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0171	0.0207	0.0333	0.0426	0.0971	0.0230	0.7661
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0195	0.0237	0.0361	0.0472	0.0972	0.0226	0.7537
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0205	0.0248	0.0371	0.0489	0.0973	0.0225	0.7490
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0211	0.0258	0.0383	0.0506	0.0973	0.0223	0.7444
2	1	0.0000	0.0000	0.0000	0.2227	0.0549	0.0690	0.2517	0.1949	0.1965	0.0103	0.0000	0.0000	0.0000	0.0000
2	2	0.0000	0.0001	0.0013	0.2348	0.0678	0.1031	0.2262	0.1725	0.1843	0.0099	0.0000	0.0000	0.0000	0.0000
2	3	0.0000	0.0020	0.0042	0.2375	0.0796	0.1282	0.2101	0.1537	0.1753	0.0094	0.0000	0.0000	0.0000	0.0000
2	4	0.0000	0.0008	0.0024	0.2395	0.0718	0.1181	0.2256	0.1590	0.1726	0.0102	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0000	0.0006	0.2326	0.0629	0.0917	0.2513	0.1760	0.1746	0.0103	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0000	0.0005	0.2211	0.0582	0.0826	0.2603	0.1866	0.1799	0.0108	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0002	0.0013	0.2287	0.0631	0.0967	0.2548	0.1735	0.1711	0.0106	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0005	0.0009	0.2290	0.0656	0.0990	0.2548	0.1703	0.1693	0.0106	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0005	0.2269	0.0602	0.0854	0.2602	0.1836	0.1726	0.0105	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0006	0.2369	0.0634	0.0899	0.2543	0.1771	0.1675	0.0102	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0002	0.0013	0.2309	0.0646	0.0983	0.2530	0.1721	0.1692	0.0104	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0002	0.0013	0.2183	0.0602	0.0939	0.2618	0.1784	0.1751	0.0108	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0000	0.2209	0.0564	0.0767	0.2628	0.1956	0.1772	0.0104	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.2213	0.0542	0.0647	0.2614	0.2068	0.1815	0.0102	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.2265	0.0553	0.0628	0.2632	0.2067	0.1752	0.0101	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.2245	0.0548	0.0621	0.2640	0.2090	0.1753	0.0103	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.2267	0.0553	0.0625	0.2617	0.2055	0.1780	0.0103	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.2404	0.0585	0.0631	0.2605	0.1985	0.1693	0.0098	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.2207	0.0537	0.0598	0.2610	0.2103	0.1835	0.0110	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.2240	0.0546	0.0612	0.2585	0.2048	0.1860	0.0108	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.2569	0.0625	0.0664	0.2540	0.1821	0.1690	0.0091	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.2320	0.0568	0.0649	0.2578	0.1969	0.1816	0.0099	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.2310	0.0566	0.0653	0.2583	0.1973	0.1816	0.0099	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.2235	0.0548	0.0641	0.2593	0.2027	0.1854	0.0103	0.0000	0.0000	0.0000	0.0000

### 2005 VMT by Facility (OHFVMT.D)

#### VTM BY FACILITY

1	0.316	0.442	0.223	0.018
	0.333	0.423	0.227	0.017
	0.346	0.421	0.215	0.018
	0.324	0.431	0.226	0.019
	0.310	0.444	0.227	0.020
	0.310	0.453	0.217	0.021
	0.298	0.457	0.224	0.021
	0.300	0.455	0.223	0.021
	0.313	0.447	0.220	0.021
	0.315	0.438	0.227	0.020
	0.328	0.435	0.217	0.020
	0.348	0.431	0.200	0.020

2005 Vehicle Age Distribution File (OHREG.D), all analysis years

Mobile Source Emissions Inventory for the Cincinnati 8-hour Ozone Nonattainment Area, May 2007

```

* LDT3
4 0.0287 0.0383 0.0424 0.0398 0.1031 0.1525
  0.0769 0.0740 0.0677 0.0768 0.0578 0.0461
  0.0317 0.0221 0.0252 0.0249 0.0219 0.0136
  0.0124 0.0083 0.0068 0.0030 0.0021 0.0008 0.0231
* LDT4
5 0.0386 0.0514 0.0569 0.0489 0.1129 0.2054
  0.1223 0.1113 0.0698 0.0629 0.0500 0.0078
  0.0133 0.0043 0.0046 0.0037 0.0039 0.0030
  0.0030 0.0021 0.0018 0.0005 0.0002 0.0000 0.0214

```

## 2005 MOBILE6.2 Input File (OH.SCN)

\* Mobile6 file for Butler, Clermont, Hamilton and Warren counties,  
 \* OBD program initiated on 1/5/04

\* created 05/30/06 by ajr, new OEPA inputs for ozone, pre 2006  
 \*\*\*\*\* Header Section \*\*\*\*\*

```

MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE         : OH.RPT
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : ohemiss.tbl

```

RUN DATA  
 \*\*\*\*\* Run Section \*\*\*\*\*

```

VMT BY HOUR          : OHVMT.D
SPEED VMT            : OHSVMT.D
VMT BY FACILITY       : OHFVMT.D
REG DIST             : OHREG.D
FUEL RVP             : 9.0
EXPRESS HC AS VOC    :
* ANTI-TAMPERING PROGRAM
ANTI-TAMP PROG       :
96 78 50 22222 21111111 1 12 098. 12111112

```

```

* I/M PROGRAM(S)
* OBD
I/M PROGRAM           : 1 2004 2005 2 T/O OBD I/M
I/M MODEL YEARS       : 1 1996 2050
I/M VEHICLES          : 1 22222 21111111 1
I/M STRINGENCY        : 1 30.0
I/M COMPLIANCE         : 1 98.0
I/M WAIVER RATES       : 1 1.0 1.0
I/M EXEMPTION AGE      : 1 25
I/M GRACE PERIOD       : 1 2

```

```

* EVAP OBD with no post '07 HDGV
I/M PROGRAM           : 2 2004 2005 2 T/O EVAP OBD & GC
I/M MODEL YEARS       : 2 1996 2007
I/M VEHICLES          : 2 22222 11111111 1
I/M COMPLIANCE         : 2 98.0
I/M WAIVER RATES       : 2 1.0 1.0
I/M EXEMPTION AGE      : 2 25
I/M GRACE PERIOD       : 2 2

```

```

* ASM 2525
I/M PROGRAM           : 4 2001 2005 2 T/O ASM 2525 PHASE-IN
I/M MODEL YEARS       : 4 1982 1995
I/M VEHICLES          : 4 22222 21111111 1
I/M STRINGENCY        : 4 30.0
I/M COMPLIANCE         : 4 98.0
I/M WAIVER RATES       : 4 1.0 1.0
I/M EXEMPTION AGE      : 4 25
I/M GRACE PERIOD       : 4 2

```

```

* IDLE
I/M PROGRAM           : 5 1998 2000 2 T/O IDLE
I/M MODEL YEARS       : 5 1973 1996
I/M VEHICLES          : 5 22222 21111111 1
I/M STRINGENCY        : 5 30.0
I/M COMPLIANCE         : 5 98.0
I/M WAIVER RATES       : 5 1.0 1.0
I/M EXEMPTION AGE      : 5 25
I/M GRACE PERIOD       : 5 2

```

```

* IM 240
I/M PROGRAM           : 6 1996 1997 2 T/O IM240
I/M MODEL YEARS       : 6 1971 1994
I/M VEHICLES          : 6 22222 21111111 1
I/M STRINGENCY        : 6 30.0

```

```

I/M COMPLIANCE      : 6 98.0
I/M WAIVER RATES    : 6 1.0 1.0
I/M EXEMPTION AGE    : 6 25
I/M CUTPOINTS       : 6 CUTPOINT.D
I/M GRACE PERIOD     : 6 2

* GC
I/M PROGRAM         : 7 1996 2005 2 T/O GC
I/M MODEL YEARS     : 7 1982 1995
I/M VEHICLES        : 7 22222 21111111 1
I/M COMPLIANCE      : 7 98.0
I/M WAIVER RATES    : 7 1.0 1.0
I/M EXEMPTION AGE    : 7 25
I/M GRACE PERIOD     : 7 2
FUEL PROGRAM        : 1
OXYGENATED FUELS    : .000 .420 .000 .036 2
STAGE II REFUELING  :
93 3 86. 86.
EXPAND BUS EFS      :
***** Summer Scenario Section *****
SCENARIO RECORD     : Ohio Emissions - CY20xx
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
SEASON              : 1
MIN/MAX TEMP        : 61.0 95.0
PARTICLE SIZE       : 2.5
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR       : 317.00
***** Annual Scenario Section *****
SCENARIO RECORD     : Ohio Emissions - CY20xx
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
MIN/MAX TEMP        : 47.0 64.0
PARTICLE SIZE       : 2.5
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR       : 317.00
***** End of Run *****

```

## 2005 MOBILE6.2 Output Report (OH.RPT)

```

*****
* MOBILE6.2.03 (24-Sep-2003) *
* Input file: OH.SCN (file 3, run 1). *
*****

* Reading Hourly VMT distribution from the following external
* data file: OHVMT.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external
* data file: OHSVMT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: OHFVMT.D

  Reading User Supplied ROADWAY VMT Factors

* Reading Registration Distributions from the following external
* data file: OHREG.D

* Reading ASM I/M Test Credits from ASMDATA.D

* Reading non-default I/M CUTPOINTS from the following external
* data file: CUTPOINT.D
  M616 Comment: User has supplied post-1999 sulfur levels.
  M601 Comment: User has enabled STAGE II REFUELING.

* # # # # #
* Ohio Emissions - CY20xx

* File 3, Run 1, Scenario 1.
* # # # # #

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
*** I/M credits for Tech1&2 vehicles were read from the following external
    data file: TECH12.D

```





```

-----
Composite Emission Factors (g/mi):
Composite VOC :    7.331    0.608    0.837
Composite CO  :   105.69    4.791    3.186
Composite NOX :    8.762   16.765   13.821
-----

```

### 2008 VMT by Speed bin (OHSVMT.D)

```

SPEED VMT
1 1 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0011 0.0172 0.0258 0.0411 0.0472 0.0983 0.0163 0.7530
1 2 0.0000 0.0000 0.0000 0.0001 0.0000 0.0013 0.0055 0.0118 0.0236 0.0419 0.0376 0.0995 0.0235 0.7551
1 3 0.0000 0.0001 0.0005 0.0024 0.0016 0.0022 0.0082 0.0099 0.0242 0.0355 0.0401 0.1107 0.0653 0.6994
1 4 0.0000 0.0002 0.0001 0.0007 0.0028 0.0017 0.0076 0.0124 0.0256 0.0403 0.0357 0.0985 0.0235 0.7511
1 5 0.0000 0.0000 0.0002 0.0000 0.0005 0.0022 0.0074 0.0138 0.0291 0.0433 0.0374 0.0987 0.0158 0.7517
1 6 0.0000 0.0000 0.0002 0.0000 0.0004 0.0022 0.0068 0.0146 0.0304 0.0446 0.0389 0.0980 0.0162 0.7478
1 7 0.0000 0.0000 0.0002 0.0005 0.0015 0.0032 0.0081 0.0148 0.0302 0.0449 0.0389 0.0984 0.0157 0.7435
1 8 0.0000 0.0000 0.0002 0.0006 0.0025 0.0026 0.0081 0.0153 0.0299 0.0433 0.0379 0.0981 0.0157 0.7458
1 9 0.0000 0.0000 0.0002 0.0000 0.0004 0.0022 0.0077 0.0141 0.0296 0.0433 0.0365 0.0981 0.0159 0.7520
1 10 0.0000 0.0000 0.0002 0.0000 0.0003 0.0024 0.0073 0.0137 0.0288 0.0423 0.0352 0.0979 0.0160 0.7560
1 11 0.0000 0.0000 0.0002 0.0004 0.0014 0.0028 0.0072 0.0130 0.0266 0.0406 0.0336 0.0984 0.0154 0.7605
1 12 0.0000 0.0000 0.0002 0.0004 0.0016 0.0028 0.0064 0.0126 0.0252 0.0394 0.0318 0.0997 0.0154 0.7646
1 13 0.0000 0.0000 0.0000 0.0002 0.0000 0.0004 0.0057 0.0130 0.0260 0.0393 0.0323 0.0987 0.0162 0.7683
1 14 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0004 0.0179 0.0260 0.0362 0.0402 0.0973 0.0167 0.7653
1 15 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0191 0.0272 0.0350 0.0422 0.0967 0.0167 0.7631
1 16 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0183 0.0261 0.0340 0.0404 0.0966 0.0168 0.7678
1 17 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0165 0.0234 0.0326 0.0381 0.0955 0.0170 0.7769
1 18 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0145 0.0206 0.0298 0.0332 0.0948 0.0173 0.7897
1 19 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0150 0.0213 0.0320 0.0367 0.0958 0.0171 0.7821
1 20 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0159 0.0225 0.0341 0.0402 0.0965 0.0169 0.7738
1 21 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0166 0.0235 0.0346 0.0409 0.0969 0.0168 0.7706
1 22 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0189 0.0268 0.0373 0.0457 0.0976 0.0165 0.7572
1 23 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0199 0.0281 0.0381 0.0473 0.0976 0.0164 0.7527
1 24 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0002 0.0204 0.0292 0.0393 0.0494 0.0979 0.0162 0.7473
2 1 0.0000 0.0000 0.0000 0.2610 0.0500 0.0737 0.2342 0.1881 0.1842 0.0087 0.0000 0.0000 0.0000 0.0000
2 2 0.0001 0.0001 0.0015 0.2756 0.0686 0.1079 0.2011 0.1598 0.1769 0.0084 0.0000 0.0000 0.0000 0.0000
2 3 0.0001 0.0021 0.0049 0.2792 0.0790 0.1274 0.1905 0.1380 0.1700 0.0087 0.0000 0.0000 0.0000 0.0000
2 4 0.0000 0.0013 0.0017 0.2839 0.0690 0.1156 0.2056 0.1555 0.1583 0.0092 0.0000 0.0000 0.0000 0.0000
2 5 0.0000 0.0000 0.0013 0.2758 0.0608 0.0919 0.2283 0.1740 0.1584 0.0094 0.0000 0.0000 0.0000 0.0000
2 6 0.0000 0.0000 0.0004 0.2650 0.0548 0.0812 0.2406 0.1846 0.1636 0.0098 0.0000 0.0000 0.0000 0.0000
2 7 0.0000 0.0004 0.0014 0.2735 0.0593 0.0941 0.2347 0.1716 0.1550 0.0099 0.0000 0.0000 0.0000 0.0000
2 8 0.0000 0.0004 0.0015 0.2745 0.0602 0.0971 0.2347 0.1689 0.1528 0.0099 0.0000 0.0000 0.0000 0.0000
2 9 0.0000 0.0000 0.0006 0.2724 0.0576 0.0842 0.2374 0.1829 0.1551 0.0098 0.0000 0.0000 0.0000 0.0000
2 10 0.0000 0.0000 0.0011 0.2824 0.0616 0.0883 0.2297 0.1775 0.1497 0.0096 0.0000 0.0000 0.0000 0.0000
2 11 0.0000 0.0004 0.0014 0.2760 0.0612 0.0968 0.2316 0.1700 0.1528 0.0098 0.0000 0.0000 0.0000 0.0000
2 12 0.0000 0.0004 0.0014 0.2624 0.0558 0.0924 0.2421 0.1769 0.1585 0.0101 0.0000 0.0000 0.0000 0.0000
2 13 0.0000 0.0000 0.0000 0.2651 0.0526 0.0775 0.2429 0.1924 0.1597 0.0097 0.0000 0.0000 0.0000 0.0000
2 14 0.0000 0.0000 0.0000 0.2637 0.0505 0.0663 0.2426 0.2031 0.1645 0.0094 0.0000 0.0000 0.0000 0.0000
2 15 0.0000 0.0000 0.0000 0.2709 0.0518 0.0638 0.2432 0.2038 0.1570 0.0095 0.0000 0.0000 0.0000 0.0000
2 16 0.0000 0.0000 0.0000 0.2692 0.0515 0.0629 0.2435 0.2066 0.1567 0.0096 0.0000 0.0000 0.0000 0.0000
2 17 0.0000 0.0000 0.0000 0.2707 0.0518 0.0633 0.2421 0.2024 0.1602 0.0095 0.0000 0.0000 0.0000 0.0000
2 18 0.0000 0.0000 0.0000 0.2865 0.0548 0.0630 0.2409 0.1950 0.1507 0.0091 0.0000 0.0000 0.0000 0.0000
2 19 0.0000 0.0000 0.0000 0.2648 0.0506 0.0599 0.2407 0.2082 0.1659 0.0099 0.0000 0.0000 0.0000 0.0000
2 20 0.0000 0.0000 0.0000 0.2670 0.0511 0.0616 0.2395 0.2014 0.1700 0.0095 0.0000 0.0000 0.0000 0.0000
2 21 0.0000 0.0000 0.0000 0.3013 0.0576 0.0661 0.2372 0.1758 0.1537 0.0082 0.0000 0.0000 0.0000 0.0000
2 22 0.0000 0.0000 0.0000 0.2741 0.0524 0.0662 0.2403 0.1917 0.1664 0.0089 0.0000 0.0000 0.0000 0.0000
2 23 0.0000 0.0000 0.0000 0.2728 0.0522 0.0669 0.2408 0.1920 0.1664 0.0089 0.0000 0.0000 0.0000 0.0000
2 24 0.0000 0.0000 0.0000 0.2649 0.0507 0.0658 0.2413 0.1980 0.1702 0.0092 0.0000 0.0000 0.0000 0.0000

```

### 2008 VMT by Facility Type (OHFVMT.D)

```

VMT BY FACILITY
1 0.298 0.438 0.247 0.017
  0.314 0.420 0.250 0.016
  0.328 0.417 0.239 0.016
  0.308 0.424 0.251 0.018
  0.295 0.434 0.252 0.018
  0.296 0.443 0.242 0.019
  0.285 0.445 0.250 0.020
  0.288 0.443 0.250 0.020
  0.299 0.435 0.246 0.019
  0.301 0.427 0.254 0.019
  0.314 0.424 0.243 0.019
  0.335 0.421 0.225 0.019
  0.335 0.416 0.231 0.018
  0.320 0.424 0.238 0.018
  0.312 0.425 0.245 0.018
  0.326 0.418 0.238 0.018
  0.347 0.404 0.232 0.017

```

...  
Identical distribution for all veh. types with the exception of diesel  
transit buses

2008 MOBILE6.2 Input File (OH.SCN)

```
MOBILE6 INPUT FILE :
POLLUTANTS : HC NOx CO
PARTICULATES :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE : oh.rpt
DATABASE OUTPUT :
WITH FIELDNAMES :
DATABASE EMISSIONS : 2211 1111 22
DAILY OUTPUT :
EMISSIONS TABLE : ohemiss.tbl
```

Mobile Source Emissions Inventory for the Cincinnati 8-hour Ozone Nonattainment Area, May 2007

END OF RUN

```
*****
* MOBILE6.2.03 (24-Sep-2003) *
* Input file: OH.SCN (file 3, run 1). *
*****
```

### Reading User Supplied ROADWAY VMT Factors

```
* data file: OHREG.D
M616 Comment:
      User has supplied post-1999 sulfur levels.
M601 Comment:
      User has enabled STAGE II REFUELING.
```

```
* File 3, Run 1, Scenario 1.
```

```

HDDV DEFEAT DEVICE EFFECTS ARE PRESENT. THE REBUILD FRACTION IS 0.30.

```

Calendar Year:	2008
Month:	July
Altitude:	Low
Minimum Temperature:	61.0 (F)
Maximum Temperature:	95.0 (F)
Absolute Humidity:	75. grains/lb
Nominal Fuel RVP:	7.8 psi
Weathered RVP:	7.9 psi
Fuel Sulfur Content:	30. ppm

Exhaust I/M Program:	No
Evap I/M Program:	No
ATP Program:	Yes
Reformulated Gas:	No

Ether Blend Market Share: 0.000	Alcohol Blend Market Share: 0.420
Ether Blend Oxygen Content: 0.000	Alcohol Blend Oxygen Content: 0.036
	Alcohol Blend RVP Waiver: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.3623	0.3705	0.1385		0.0357	0.0004	0.0020	0.0851	0.0055	1.0000

Composite Emission Factors (g/mi):										
Composite VOC :	0.967	0.821	1.030	0.878	1.397	0.349	0.576	0.528	3.04	0.910
Composite CO :	9.53	10.48	12.42	11.01	14.59	1.369	0.975	2.884	19.03	9.927
Composite NOX :	0.746	0.957	1.405	1.079	2.902	0.866	1.162	9.819	1.19	1.768



1	18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0142	0.0196	0.0344	0.0347	0.0981	0.0185	0.7806
1	19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0147	0.0202	0.0372	0.0385	0.0994	0.0182	0.7718
1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0156	0.0214	0.0398	0.0423	0.1003	0.0179	0.7627
1	21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0162	0.0223	0.0402	0.0430	0.1008	0.0179	0.7596
1	22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0184	0.0254	0.0432	0.0479	0.1019	0.0175	0.7457
1	23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0193	0.0267	0.0440	0.0495	0.1019	0.0174	0.7412
1	24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0199	0.0277	0.0454	0.0517	0.1023	0.0172	0.7356
2	1	0.0000	0.0001	0.0001	0.1071	0.0558	0.1000	0.2671	0.2068	0.2312	0.0320	0.0000	0.0000	0.0000	0.0000
2	2	0.0003	0.0005	0.0041	0.1235	0.0779	0.1412	0.2221	0.1903	0.2102	0.0300	0.0000	0.0000	0.0000	0.0000
2	3	0.0003	0.0036	0.0106	0.1306	0.0943	0.1543	0.2097	0.1696	0.1966	0.0304	0.0000	0.0000	0.0000	0.0000
2	4	0.0001	0.0017	0.0046	0.1250	0.0813	0.1490	0.2252	0.1837	0.1969	0.0327	0.0000	0.0000	0.0000	0.0000
2	5	0.0000	0.0001	0.0018	0.1181	0.0717	0.1196	0.2568	0.2002	0.1982	0.0334	0.0000	0.0000	0.0000	0.0000
2	6	0.0000	0.0000	0.0005	0.1122	0.0637	0.1063	0.2695	0.2086	0.2045	0.0346	0.0000	0.0000	0.0000	0.0000
2	7	0.0000	0.0004	0.0022	0.1179	0.0714	0.1201	0.2585	0.2034	0.1913	0.0347	0.0000	0.0000	0.0000	0.0000
2	8	0.0000	0.0005	0.0024	0.1186	0.0719	0.1226	0.2589	0.2017	0.1887	0.0347	0.0000	0.0000	0.0000	0.0000
2	9	0.0000	0.0000	0.0007	0.1170	0.0671	0.1078	0.2700	0.2089	0.1940	0.0345	0.0000	0.0000	0.0000	0.0000
2	10	0.0000	0.0000	0.0010	0.1227	0.0731	0.1141	0.2615	0.2052	0.1886	0.0337	0.0000	0.0000	0.0000	0.0000
2	11	0.0000	0.0004	0.0026	0.1191	0.0724	0.1238	0.2568	0.2017	0.1891	0.0341	0.0000	0.0000	0.0000	0.0000
2	12	0.0000	0.0004	0.0020	0.1119	0.0654	0.1175	0.2671	0.2064	0.1944	0.0349	0.0000	0.0000	0.0000	0.0000
2	13	0.0000	0.0000	0.0001	0.1109	0.0614	0.1026	0.2747	0.2158	0.2005	0.0340	0.0000	0.0000	0.0000	0.0000
2	14	0.0000	0.0000	0.0000	0.1092	0.0568	0.0867	0.2802	0.2270	0.2070	0.0331	0.0000	0.0000	0.0000	0.0000
2	15	0.0000	0.0000	0.0000	0.1132	0.0588	0.0832	0.2829	0.2300	0.1984	0.0335	0.0000	0.0000	0.0000	0.0000
2	16	0.0000	0.0000	0.0000	0.1125	0.0584	0.0818	0.2827	0.2329	0.1976	0.0340	0.0000	0.0000	0.0000	0.0000
2	17	0.0000	0.0000	0.0000	0.1131	0.0588	0.0823	0.2815	0.2283	0.2022	0.0338	0.0000	0.0000	0.0000	0.0000
2	18	0.0000	0.0000	0.0000	0.1216	0.0632	0.0824	0.2841	0.2234	0.1924	0.0328	0.0000	0.0000	0.0000	0.0000
2	19	0.0000	0.0000	0.0000	0.1103	0.0573	0.0771	0.2781	0.2338	0.2074	0.0359	0.0000	0.0000	0.0000	0.0000
2	20	0.0000	0.0000	0.0000	0.1111	0.0577	0.0795	0.2773	0.2263	0.2131	0.0349	0.0000	0.0000	0.0000	0.0000
2	21	0.0000	0.0000	0.0000	0.1288	0.0669	0.0874	0.2838	0.2040	0.1988	0.0303	0.0000	0.0000	0.0000	0.0000
2	22	0.0000	0.0000	0.0000	0.1143	0.0594	0.0866	0.2805	0.2164	0.2108	0.0321	0.0000	0.0000	0.0000	0.0000
2	23	0.0000	0.0000	0.0000	0.1135	0.0590	0.0875	0.2809	0.2164	0.2108	0.0319	0.0000	0.0000	0.0000	0.0000
2	24	0.0000	0.0000	0.0000	0.1096	0.0569	0.0855	0.2794	0.2216	0.2140	0.0330	0.0000	0.0000	0.0000	0.0000

## 2018 VMT by Facility Type (OHFVMT.D)

### VMT BY FACILITY

1	0.329	0.499	0.154	0.018
	0.348	0.480	0.155	0.017
	0.361	0.473	0.148	0.018
	0.344	0.484	0.153	0.019
	0.331	0.496	0.153	0.020
	0.330	0.502	0.147	0.021
	0.319	0.508	0.151	0.021
	0.323	0.505	0.151	0.022
	0.335	0.496	0.149	0.021
	0.338	0.488	0.153	0.020
	0.351	0.482	0.147	0.020
	0.371	0.473	0.136	0.020
	0.370	0.469	0.141	0.019
	0.354	0.480	0.147	0.019
	0.347	0.483	0.150	0.020
	0.362	0.473	0.145	0.020
	0.383	0.457	0.141	0.019
	0.412	0.429	0.141	0.017
	0.417	0.438	0.127	0.018
	0.391	0.456	0.135	0.018
	0.349	0.467	0.167	0.017
	0.331	0.492	0.158	0.019
	0.319	0.501	0.161	0.019
	0.316	0.508	0.156	0.020

...

Identical distribution for all veh. types with the exception of diesel transit buses

26	0.213	0.735	0.032	0.019
	0.213	0.735	0.032	0.019
	0.213	0.735	0.032	0.019
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009
	0.057	0.897	0.036	0.009

```

0.057 0.897 0.036 0.009
0.213 0.735 0.032 0.019
0.213 0.735 0.032 0.019
0.213 0.735 0.032 0.019
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009
0.057 0.897 0.036 0.009

```

## 2018 MOBILE6.2 Input File (OH.SCN)

```

* Mobile6 input file for Butler, Clermont, Hamilton and Warren counties,
* low RVP beginning summer 2008
* created 4/9/07 by ajr, includes annual scenario, low RVP, post 2007
***** Header Section *****
MOBILE6 INPUT FILE :
POLLUTANTS          : HC NOx CO
PARTICULATES        :
* PARTICULATES REPORTED IN *.PM FILE
REPORT FILE         : oh.rpt
DATABASE OUTPUT      :
WITH FIELDNAMES      :
DATABASE EMISSIONS   : 2211 1111 22
DAILY OUTPUT         :
EMISSIONS TABLE     : ohemiss.tbl

RUN DATA
***** Run Section *****
VMT BY HOUR         : OHVMT.D
SPEED VMT           : OHVMT.D
VMT BY FACILITY      : OHVMT.D
REG DIST            : OHREG.D
ANTI-TAMP PROG       : 96 78 50 22222 21111111 1 12 098. 12111112
FUEL PROGRAM         : 1
OXYGENATED FUELS     : .000 .420 .000 .036 2
STAGE II REFUELING   :
93 3 86. 86.
EXPAND BUS EFS       :
REBUILD EFFECTS      : 0.30
***** Summer Scenario Section *****
SCENARIO RECORD      : Ohio Emissions - CY20xx
CALENDAR YEAR        : 2018
EVALUATION MONTH     : 7
FUEL RVP              : 7.8
SEASON               : 1
MIN/MAX TEMP         : 61.0 95.0
PARTICLE SIZE        : 2.5
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** Annual Scenario Section *****
SCENARIO RECORD      : Ohio Emissions - CY20xx
CALENDAR YEAR        : 2018
EVALUATION MONTH     : 7
FUEL RVP              : 9.0
MIN/MAX TEMP         : 47.0 64.0
PARTICLE SIZE        : 2.5
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV
DIESEL SULFUR        : 43
***** End of Run *****
END OF RUN

```

## 2018 MOBILE6.2 Output File (OH.RPT)

```

*****
* MOBILE6.2.03 (24-Sep-2003) *
* Input file: OH.SCN (file 3, run 1). *
*****

* Reading Hourly VMT distribution from the following external
* data file: OHVMT.D

* Reading Hourly, Roadway, and Speed VMT dist. from the following external

```

```

* data file: OHSVMT.D

* Reading Hourly Roadway VMT distribution from the following external
* data file: OHFVMT.D

Reading User Supplied ROADWAY VMT Factors

* Reading Registration Distributions from the following external
* data file: OHREG.D
M616 Comment:
    User has supplied post-1999 sulfur levels.
M601 Comment:
    User has enabled STAGE II REFUELING.

* # # # # #
* Ohio Emissions - CY20xx

* File 3, Run 1, Scenario 1.
* # # # # #

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
    there are no sales for vehicle class HDGV8b
M 48 Warning:
    there are no sales for vehicle class LDDT12
HDDV DEFEAT DEVICE EFFECTS ARE PRESENT. THE REBUILD FRACTION IS 0.30.

        Calendar Year: 2018
            Month: July
            Altitude: Low
        Minimum Temperature: 61.0 (F)
        Maximum Temperature: 95.0 (F)
        Absolute Humidity: 75. grains/lb
        Nominal Fuel RVP: 7.8 psi
        Weathered RVP: 7.9 psi
        Fuel Sulfur Content: 30. ppm

        Exhaust I/M Program: No
        Evap I/M Program: No
        ATP Program: Yes
        Reformulated Gas: No

Ether Blend Market Share: 0.000    Alcohol Blend Market Share: 0.420
Ether Blend Oxygen Content: 0.000    Alcohol Blend Oxygen Content: 0.036
                                         Alcohol Blend RVP Waiver: Yes

Vehicle Type:    LDGV    LDGT12    LDGT34    LDGT    HDGV    LDDV    LDDT    HDDV    MC    All Veh
GVWR:           <6000    >6000    (All)
-----
VMT Distribution: 0.2770    0.4319    0.1614    0.0359    0.0002    0.0024    0.0861    0.0051    1.0000
-----
Composite Emission Factors (g/mi):
Composite VOC :    0.418    0.405    0.506    0.432    0.540    0.071    0.156    0.287    2.90    0.431
Composite CO :    6.40    7.01    7.78    7.22    8.03    0.687    0.405    0.601    17.35    6.486
Composite NOX :    0.309    0.384    0.522    0.422    0.767    0.078    0.214    2.452    1.24    0.581
-----
Veh. Type:    GasBUS    URBAN    SCHOOL
-----
VMT Mix:    0.0001    0.0010    0.0019
-----
Composite Emission Factors (g/mi):
Composite VOC :    1.861    0.246    0.418
Composite CO :    14.95    0.988    1.021
Composite NOX :    3.602    4.030    5.364
-----
* # # # # #
* Ohio Emissions - CY20xx

* File 3, Run 1, Scenario 2.
* # # # # #

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

```

```

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
M 48 Warning:
there are no sales for vehicle class HDGV8b
M 48 Warning:
there are no sales for vehicle class LDDT12

Calendar Year: 2018
Month: July
Altitude: Low
Minimum Temperature: 47.0 (F)
Maximum Temperature: 64.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 9.0 psi
Weathered RVP: 9.5 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: Yes
Reformulated Gas: No

Ether Blend Market Share: 0.000 Alcohol Blend Market Share: 0.420
Ether Blend Oxygen Content: 0.000 Alcohol Blend Oxygen Content: 0.036
Alcohol Blend RVP Waiver: Yes

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh
GVWR: <6000 >6000 (All)
VMT Distribution: 0.2770 0.4319 0.1614 0.0359 0.0002 0.0024 0.0861 0.0051 1.0000
-----
Composite Emission Factors (g/mi):
Composite VOC : 0.403 0.419 0.523 0.448 0.461 0.071 0.156 0.287 2.09 0.430
Composite CO : 9.58 9.86 10.67 10.08 8.67 0.687 0.405 0.601 14.80 9.072
Composite NOX : 0.299 0.397 0.540 0.436 0.770 0.078 0.214 2.452 1.45 0.588
-----
Veh. Type: GasBUS URBAN SCHOOL
VMT Mix: 0.0001 0.0010 0.0019
-----
Composite Emission Factors (g/mi):
Composite VOC : 1.561 0.246 0.418
Composite CO : 16.14 0.988 1.021
Composite NOX : 3.616 4.030 5.364
-----

```



## **APPENDIX D**

### **Air Quality Impact Summary for the OKI Portion of the Nonattainment Area**

## 2005 Output Report (R7803)

### DAILY AIR QUALITY IMPACT FOR OKI REGION SUMMARY

02-MAY-07

County or Township	Network Road Miles	Network Lane Miles	Vehicle Miles	VOC (Tons/Day)	CO (Tons/Day)	NOX (Tons/Day)	PM (Tons/Day)	Summer VMT
Boone County	225.21	605.99	3696700	3.936	44.482	9.811	0.167	3941640
Butler County	567.52	1423.48	7263251	10.056	99.711	18.351	0.325	7601920
Campbell County	188.73	488.87	2143853	2.281	25.797	5.685	0.097	2283932
Clermont County	416.71	964.45	4827434	6.768	66.272	12.351	0.216	5116248
Dearborn County	144.53	342.91	1258935	2.236	19.494	3.239	0.057	1343394
Hamilton County	1024.81	3051.64	21331102	29.894	292.837	54.556	0.955	22599394
Kenton County	225.10	570.27	3763996	4.007	45.292	9.987	0.170	4012547
Warren County	384.61	958.41	5465481	7.689	75.031	14.033	0.245	5813037
Montgomery Cnty	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Greene County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Miami County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clark County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Preble County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clinton County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Lawrenceburg Twp	24.19	68.70	570452	0.987	8.833	1.429	0.026	592844

State								
IN Not AQ Region	144.53	342.91	1258935	2.236	19.494	3.239	0.057	1343394
KY - OKI Only	639.04	1665.13	9604550	10.225	115.570	25.483	0.433	10238120
OH - OKI Only	2393.64	6397.98	38887272	54.406	533.851	99.292	1.740	41130600
OH - MVRPC Only	0.00	0.00	0	0.000	0.000	0.000	0.000	0
OH - Other	0.00	0.00	0	0.000	0.000	0.000	0.000	0
IN NonAttainment	24.19	68.70	570452	0.987	8.833	1.429	0.026	592844

Region	3201.40	8474.72	50321204	67.854	677.748	129.442	2.256	53304956
--------	---------	---------	----------	--------	---------	---------	-------	----------

Intra-Zonal VMT								
Boone County			23739	0.024	0.286	0.059	0.001	
Butler County			30020	0.040	0.412	0.072	0.001	
Campbell County			9658	0.010	0.116	0.024	0.000	
Clermont County			31835	0.042	0.437	0.077	0.001	
Dearborn County			16899	0.028	0.262	0.041	0.001	
Hamilton County			46325	0.061	0.636	0.112	0.002	
Kenton County			10902	0.011	0.131	0.027	0.000	
Warren County			29623	0.039	0.407	0.072	0.001	
Montgomery Cnty			0	0.000	0.000	0.000	0.000	
Greene County			0	0.000	0.000	0.000	0.000	
Miami County			0	0.000	0.000	0.000	0.000	
Clark County			0	0.000	0.000	0.000	0.000	
Preble County			0	0.000	0.000	0.000	0.000	
Clinton County			0	0.000	0.000	0.000	0.000	
Lawrenceburg Twp			3492	0.005	0.048	0.008	0.000	
Total Intra-Zonal			202493	0.259	2.734	0.492	0.009	

\* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT.  
Emissions for VOC and NOX include a factor to represent summer travel.

Transit VMT								
IN Not AQ Region			0	0.000	0.000	0.000	0.000	
KY - OKI Only			8142	0.005	0.038	0.147	0.005	
OH - OKI Only			29345	0.009	0.155	0.542	0.019	
OH - MVRPC Only			0	0.000	0.000	0.000	0.000	
OH - Other			0	0.000	0.000	0.000	0.000	
IN NonAttainment			0	0.000	0.000	0.000	0.000	
Total Transit			37488	0.014	0.193	0.689	0.024	

\* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT.  
Emissions for VOC and NOX include a factor to represent summer travel.

## 2008 Output Report (R7803)

DAILY AIR QUALITY IMPACT FOR OKI REGION SUMMARY							02-MAY-07	
County or Township	Network Road Miles	Network Lane Miles	Vehicle Miles	VOC (Tons/Day)	CO (Tons/Day)	NOX (Tons/Day)	PM (Tons/Day)	Summer VMT
Boone County	231.52	633.26	3860851	3.760	41.950	8.042	0.130	4124375
Butler County	567.07	1473.35	7543772	7.934	82.549	15.414	0.253	7909045
Campbell County	193.68	512.14	2326944	2.258	25.283	4.830	0.078	2477158
Clermont County	416.78	972.80	5195913	5.543	56.857	10.770	0.174	5526126
Dearborn County	144.53	342.91	1313708	1.785	15.783	2.601	0.044	1400932
Hamilton County	1019.38	3041.71	21464902	22.808	234.883	44.313	0.719	22737828
Kenton County	224.60	602.53	3958222	3.843	43.008	8.221	0.134	4215933
Warren County	387.13	987.90	5631402	6.024	61.622	11.705	0.189	6005831
Montgomery Cnty	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Greene County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Miami County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clark County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Preble County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clinton County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Lawrenceburg Twp	24.20	68.91	560393	0.745	6.733	1.085	0.019	584272
State								
IN Not AQ Region	144.53	342.91	1313708	1.785	15.783	2.601	0.044	1400932
KY - OKI Only	649.79	1747.93	10146017	9.861	110.241	21.094	0.342	10817467
OH - OKI Only	2390.36	6475.76	39835984	42.310	435.911	82.202	1.335	42178828
OH - MVRPC Only	0.00	0.00	0	0.000	0.000	0.000	0.000	0
OH - Other	0.00	0.00	0	0.000	0.000	0.000	0.000	0
IN NonAttainment	24.20	68.91	560393	0.745	6.733	1.085	0.019	584272
Region								
Region	3208.88	8635.51	51856112	54.701	568.667	106.981	1.740	54981500
Intra-Zonal VMT								
Boone County			22987	0.021	0.250	0.045	0.001	
Butler County			30532	0.031	0.334	0.060	0.001	
Campbell County			10470	0.010	0.114	0.020	0.000	
Clermont County			35879	0.036	0.393	0.070	0.001	
Dearborn County			22895	0.029	0.275	0.042	0.001	
Hamilton County			44905	0.045	0.491	0.088	0.002	
Kenton County			12277	0.011	0.133	0.024	0.000	
Warren County			33663	0.034	0.368	0.066	0.001	
Montgomery Cnty			0	0.000	0.000	0.000	0.000	
Greene County			0	0.000	0.000	0.000	0.000	
Miami County			0	0.000	0.000	0.000	0.000	
Clark County			0	0.000	0.000	0.000	0.000	
Preble County			0	0.000	0.000	0.000	0.000	
Clinton County			0	0.000	0.000	0.000	0.000	
Lawrenceburg Twp			3110	0.003	0.034	0.006	0.000	
Total Intra-Zonal								
Total Intra-Zonal			216718	0.219	2.392	0.420	0.007	
* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT. Emissions for VOC and NOX include a factor to represent summer travel.								
Transit VMT								
IN Not AQ Region			0	0.000	0.000	0.000	0.000	
KY - OKI Only			11357	0.005	0.043	0.175	0.004	
OH - OKI Only			33957	0.007	0.142	0.532	0.011	
OH - MVRPC Only			0	0.000	0.000	0.000	0.000	
OH - Other			0	0.000	0.000	0.000	0.000	
IN NonAttainment			0	0.000	0.000	0.000	0.000	
Total Transit								
Total Transit			45315	0.011	0.186	0.707	0.014	
* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT. Emissions for VOC and NOX include a factor to represent summer travel.								

## 2018 Output Report (R7803)

DAILY AIR QUALITY IMPACT FOR OKI REGION SUMMARY

02-MAY-07

County or Township	Network Road Miles	Network Lane Miles	Vehicle Miles	VOC (Tons/Day)	CO (Tons/Day)	NOX (Tons/Day)	PM (Tons/Day)	Summer VMT
Boone County	231.31	661.53	4280552	2.675	31.029	3.124	0.070	4578820
Butler County	582.17	1538.68	8538734	4.253	61.048	5.733	0.138	8951092
Campbell County	194.92	521.43	2980944	1.857	21.608	2.169	0.049	3178412
Clermont County	419.53	990.41	6597225	3.334	47.167	4.494	0.107	7017146
Dearborn County	144.53	342.91	1673976	1.169	13.181	1.196	0.027	1784614
Hamilton County	1026.20	3111.34	23184668	11.672	165.761	15.735	0.376	24568448
Kenton County	227.51	642.78	4830109	3.003	35.012	3.507	0.079	5139839
Warren County	389.54	1005.70	6391735	3.242	45.698	4.370	0.104	6823353
Montgomery Cnty	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Greene County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Miami County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clark County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Preble County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Clinton County	0.00	0.00	0	0.000	0.000	0.000	0.000	0
Lawrenceburg Twp	24.20	68.91	615600	0.421	4.847	0.431	0.010	642461

State								
IN Not AQ Region	144.53	342.91	1673976	1.169	13.181	1.196	0.027	1784614
KY - OKI Only	653.73	1825.74	12091605	7.535	87.650	8.800	0.197	12897072
OH - OKI Only	2417.44	6646.13	44712368	22.501	319.675	30.331	0.725	47360036
OH - MVRPC Only	0.00	0.00	0	0.000	0.000	0.000	0.000	0
OH - Other	0.00	0.00	0	0.000	0.000	0.000	0.000	0
IN NonAttainment	24.20	68.91	615600	0.421	4.847	0.431	0.010	642461

Region	3239.90	8883.69	59093544	31.624	425.352	40.758	0.959	62684192
--------	---------	---------	----------	--------	---------	--------	-------	----------

Intra-Zonal VMT								
Boone County			24381	0.014	0.177	0.017	0.000	
Butler County			38659	0.018	0.276	0.025	0.001	
Campbell County			13753	0.008	0.100	0.009	0.000	
Clermont County			52254	0.025	0.374	0.033	0.001	
Dearborn County			34325	0.022	0.270	0.023	0.001	
Hamilton County			49031	0.023	0.351	0.031	0.001	
Kenton County			17642	0.010	0.128	0.012	0.000	
Warren County			46717	0.022	0.334	0.030	0.001	
Montgomery Cnty			0	0.000	0.000	0.000	0.000	
Greene County			0	0.000	0.000	0.000	0.000	
Miami County			0	0.000	0.000	0.000	0.000	
Clark County			0	0.000	0.000	0.000	0.000	
Preble County			0	0.000	0.000	0.000	0.000	
Clinton County			0	0.000	0.000	0.000	0.000	
Lawrenceburg Twp			2152	0.001	0.015	0.001	0.000	
Total Intra-Zonal			278914	0.145	2.025	0.182	0.005	

\* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT.  
Emissions for VOC and NOX include a factor to represent summer travel.

Transit VMT								
IN Not AQ Region			0	0.000	0.000	0.000	0.000	
KY - OKI Only			12693	0.004	0.019	0.062	0.001	
OH - OKI Only			39346	0.005	0.043	0.175	0.002	
OH - MVRPC Only			0	0.000	0.000	0.000	0.000	
OH - Other			0	0.000	0.000	0.000	0.000	
IN NonAttainment			0	0.000	0.000	0.000	0.000	
Total Transit			52039	0.009	0.062	0.237	0.003	

\* Note: VMT reflects yearly average daily VMT. Emissions for CO are based on yearly average daily VMT.  
Emissions for VOC and NOX include a factor to represent summer travel.

## Appendix E

### Clinton County Air Quality Analysis (provided by ODOT)

ID, Clinton County  
ID, 2008 and 2018  
ID,

YEAR 2008								
FUNCTIONAL CLASSIFICATION	HPMS 2000 VMT	HPMS 2004 VMT	2000 GROWTH FACTOR	2008 VMT	2008 VOC EF GM/MI	VOC POLLUTANT BURDEN TONS/DAY	2008 NOX EF GM/MI	NOX POLLUTANT BURDEN TONS/DAY
RURAL								
01 INTERSTATE	529920	564130	1.027	621361	1.060	0.726	2.337	1.601
02 PRINCIPAL ARTERIAL	0	0	1.028	0	1.091	0.000	1.856	0.000
06 MINOR ARTERIAL	354790	325250	1.009	338022	1.091	0.407	1.856	0.692
07 MAJOR ARTERIAL	356470	342880	1.008	354287	1.156	0.451	1.679	0.656
08 MINOR COLLECTOR	5630	5600	1.011	5847	1.156	0.007	1.679	0.011
09 LOCAL	419560	397440	1.009	412544	1.156	0.526	1.679	0.764
URBAN								
11 INTERSTATE	0	0	1.024	0	1.060	0.000	2.337	0.000
12 FREEWAY/EXPRESSWAY	0	0	1.030	0	1.060	0.000	2.337	0.000
14 PRINCIPAL ARTERIAL	137830	143450	1.011	149514	1.300	0.214	1.641	0.270
16 MINOR ARTERIAL	1825	22630	1.011	22710	1.300	0.033	1.641	0.041
17 COLLECTOR	10860	23940	1.000	23940	1.301	0.034	1.642	0.043
19 LOCAL	7650	8500	1.004	8622	1.401	0.013	1.715	0.016
TOTAL	1824535	1833820		1936847		2.412		4.093
YEAR 2018								
FUNCTIONAL CLASSIFICATION	HPMS 2000 VMT	HPMS 2004 VMT	2000 GROWTH FACTOR	2018 VMT	2018 VOC EF GM/MI	VOC POLLUTANT BURDEN TONS/DAY	2018 NOX EF GM/MI	NOX POLLUTANT BURDEN TONS/DAY
RURAL								
01 INTERSTATE	529920	564130	1.027	764439	0.506	0.426	0.776	0.654
02 PRINCIPAL ARTERIAL	0	0	1.028	0	0.514	0.000	0.649	0.000
06 MINOR ARTERIAL	354790	325250	1.009	369953	0.514	0.210	0.649	0.265
07 MAJOR ARTERIAL	356470	342880	1.008	382804	0.540	0.228	0.597	0.252
08 MINOR COLLECTOR	5630	5600	1.011	6467	0.540	0.004	0.597	0.004
09 LOCAL	419560	397440	1.009	450304	0.540	0.268	0.597	0.296
URBAN								
11 INTERSTATE	0	0	1.024	0	0.506	0.000	0.776	0.000
12 FREEWAY/EXPRESSWAY	0	0	1.030	0	0.506	0.000	0.776	0.000
14 PRINCIPAL ARTERIAL	137830	143450	1.011	164675	0.605	0.110	0.588	0.107
16 MINOR ARTERIAL	1825	22630	1.011	22911	0.605	0.015	0.588	0.015
17 COLLECTOR	10860	23940	1.000	23940	0.606	0.016	0.588	0.016
19 LOCAL	7650	8500	1.004	8928	0.653	0.006	0.615	0.006
TOTAL	1824535	1833820		2194421		1.283		1.614

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**TITLE 326 AIR POLLUTION CONTROL BOARD**

**FIRST NOTICE OF COMMENT PERIOD**

LSA Document #07-89

**DEVELOPMENT OF NEW RULES CONCERNING VOLATILE ORGANIC COMPOUNDS EMISSIONS FROM PORTABLE FUEL CONTAINERS**

**PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on the development of new rules concerning volatile organic compound (VOC) emissions from portable fuel containers (PFCs). IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

**CITATIONS AFFECTED:** [326 IAC 8](#).

**AUTHORITY:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#).

**SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**

**Basic Purpose and Background**

Under the Clean Air Act, the United States Environmental Protection Agency (U.S. EPA) is responsible for:

- (1) establishing ambient air quality standards to protect the public health and welfare;
- (2) determining which areas of the country have air quality that does not meet those standards; and
- (3) overseeing states' efforts to develop and implement plans to improve air quality in those areas.

The Clean Air Act establishes basic requirements and procedures for the clean air planning process, but U.S. EPA issues more specific guidance to help states, citizens, businesses, and local governments comply with the Clean Air Act's requirements. U.S. EPA also promulgates rules to meet the Clean Air Act requirements.

In the April 30, 2004, Federal Register (69 FR 23858), the U.S. EPA published air quality designations and classifications for all areas in the United States for the 8-hour ozone National Ambient Air Quality Standard (8-hour standard), including the designation of 24 Indiana counties, entirely or in part, as nonattainment with the standard. The nonattainment designations became effective on June 15, 2004. The 8-hour ozone nonattainment designations have essentially replaced the former remaining 1-hour ozone nonattainment designations. Each state must put control measures into place in order to bring these areas into attainment by June 15, 2009. Indiana has submitted several ozone redesignation requests to U.S. EPA for approval and plans to submit requests for the remaining counties in the near future. Additional VOC control measures will ensure that these counties will continue to be in compliance with the 8-hour standard for ground level ozone after they have been redesignated and will also help minimize Indiana's contribution to other states' nonattainment areas.

Because VOCs contribute to the formation of ground level ozone, it is important to control VOCs in order to comply with the 8-hour ozone standard. In an effort to assist states in the Midwest Regional Planning Organization (MRPO) in the development of state implementation plans (SIPs) to comply with the federal requirements, the Lake Michigan Air Directors Consortium (LADCO) has been working with states to identify and recommend regional controls that would help states bring areas back into attainment with the 8-hour ozone standard. The MRPO includes Illinois, Indiana, Michigan, Ohio, and Wisconsin.

The MRPO states have discussed applying certain VOC control measures to all counties in the region in order to provide a general benefit to all MRPO nonattainment areas. LADCO has evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. Based on discussions with other states in the MRPO and information provided by LADCO, IDEM proposes to implement a rule to reduce VOC emissions from PFCs as part of a larger regional effort. This rule is part of a larger group of VOC control rules that have been agreed to by the LADCO states to address regional ozone and particulate matter nonattainment. Other VOC control rules will include automobile refinishing, architectural and industrial maintenance (AIM) coatings, consumer products, degreasing, and stage I vapor recovery.

PFCs are designed for transporting and storing fuel from a retail distribution point to a point of use and for eventually dispensing fuel into equipment. Otherwise known as "gas cans", PFCs come in a variety of shapes and sizes and are made from either metal or plastic. PFCs are commonly used to refuel a wide variety of equipment and vehicles such as lawnmowers, chainsaws, boats, and motorcycles.

The following five design and use characteristics of PFCs result in VOC emissions:

1. VOC emissions occurring while refilling the PFC. Vapor displacement emissions result when fuel vapor is displaced from the gas can during refueling at a service station. VOC emissions from spilled gasoline also results from over-filling.
2. VOC emissions occurring during transit. VOC emissions occur from fuel spilled during the transport of PFCs.

3. VOC emissions during storage due to temperature fluctuations. Diurnal VOC emissions result when fuel vapors escape into the air through any possible openings while the container is subjected to the daily cycle of increasing and decreasing ambient temperatures.
4. VOC emissions during storage due to permeation. Fuel stored long enough in a plastic container can eventually result in fuel molecules infiltrating and saturating the container material, allowing VOC emissions to escape through the walls of the container.
5. VOC emissions occurring while dispensing fuel from PFCs. Vapor displacement emissions result when fuel vapor is displaced from equipment being refueled. VOC emissions also result from fuel spilled during refueling with PFCs.

VOC emissions from PFCs in Indiana are estimated by the U.S. EPA to be 6,375 tons per year as of 2005. Approximately two-thirds of total VOC emission from PFCs are comprised of diurnal emissions.

The California Air Resources Board (CARB) adopted a rule on September 11, 2000, regulating PFCs sold in California. All PFCs sold in California after January 1, 2001, are required to have the following features to reduce potential VOC emissions:

1. Spill-proof container and spout design.
2. Automatic shut-off feature to prevent overfilling.
3. Automatic closing feature to ensure the container is sealed when not in use.
4. Secondary ventilation hole eliminated.
5. New plastics to reduce vapor permeation through container walls.

CARB estimates that these standards will reduce VOC emissions from PFCs by 75 percent. This VOC emission reduction estimate is based in part on an assumption that the average useful life of a PFC is five years, and that as preregulation containers wear out, are lost, or damaged, they will be replaced with the new compliant PFCs.

Delaware, Maine, Maryland, Pennsylvania, New York, Connecticut, Massachusetts, New Jersey, Rhode Island, Vermont, Virginia, Washington D.C., and Texas have all adopted PFC regulations modeled after the California rule.

In 2005, CARB amended their original PFC regulation to address problems identified with the original program. The amendments included a provision to address the potential use of kerosene containers and utility jugs as fuel storage containers. The 2005 amendments also addressed consumer concerns about spillage resulting from the automatic shut-off spout design requirements.

In the March 29, 2006, Federal Register (71 FR 15803), the U.S. EPA published a proposed national regulation to reduce hazardous air pollutant emissions from mobile sources. As part of this proposed mobile sources rule, U.S. EPA proposed standards that would limit VOC emissions from PFCs. The requirements of the proposed federal program are very similar to the recently revised California program. Rather than requiring physical design specifications, the U.S. EPA proposes a federal standard limiting evaporation and permeation of VOCs from PFCs to 0.3 grams/gallon/day. In comparison, the CARB rule maintains a 0.4 grams/gallon/day VOC emission limit.

Federal requirements of the proposed national regulation would apply to PFCs manufactured on or after January 1, 2009. U.S. EPA expects that manufacturers will be able to meet both U.S. EPA and CARB requirements with a single product for sale in all 50 states. U.S. EPA expects very little difference in the long term emission reductions provided by the federal program and those provided by the CARB program.

This rulemaking will consider implementation of a PFC VOC emission reduction program based on CARB's program. In combination with similar efforts in other MRPO states, this rule will reduce VOC emissions from PFCs in Indiana and will contribute to a regional control of VOC that will assist many counties in the MRPO states to reach and maintain attainment with the 8-hour ozone standard. A rule based on either CARB's program or on the proposed EPA rule would apply to manufacturers, dealers, and retailers manufacturing, distributing, and selling PFCs in Indiana.

Neither the CARB program nor the proposed EPA rule would require Indiana residents to discontinue the use of existing noncompliant PFCs. Compliance with new standards for owners of existing PFCs is voluntary; 100% compliance will only be achieved through attrition as pre-regulation containers wear out, are lost, or damaged, and are replaced with the new compliant PFCs.

Upon completion of this rule, it will be submitted to U.S. EPA for approval into the SIP and, along with other regional and state measures, will guide air pollution control efforts in Indiana.

#### **Alternatives To Be Considered Within the Rulemaking**

Alternative 1. Adopt a rule modeled after California's PFC VOC emission reduction program.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? No, however a comparable federal law is under consideration. In the March 29, 2006, Federal Register (71 FR 15803), the U.S. EPA published a proposed national regulation to reduce hazardous air pollutant emissions from mobile sources. As part of this proposed mobile sources rule, U.S. EPA proposed standards that would limit VOC emissions from PFCs. If the U.S. EPA's federal rulemaking becomes effective after the adoption of a rule modeled after

California's PFC VOC emission reduction program, an additional state rulemaking will be necessary to ensure state consistency with the federal program.

- If it is a federal requirement, is it different from federal law? Not applicable.
- If it is different, describe the differences. Not applicable.

Alternative 2. Adopt a rule based on the U.S. EPA proposed national regulation.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? A comparable federal law is under consideration. In the March 29, 2006, Federal Register (71 FR 15803), the U.S. EPA published a proposed national regulation to reduce hazardous air pollutant emissions from mobile sources. As part of this proposed mobile sources rule, U.S. EPA proposed standards that would limit VOC emissions from PFCs.
- If it is a federal requirement, is it different from federal law? Not applicable.
- If it is different, describe the differences. Not applicable.

Alternative 3. No action.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? No. However, there is a proposed national regulation that, if adopted, will take effect in Indiana if this rulemaking does not proceed.
- If it is a federal requirement, is it different from federal law? Not applicable.
- If it is different, describe the differences. Not applicable.

#### **Applicable Federal Law**

In the March 29, 2006, Federal Register (71 FR 15803), the U.S. EPA published a proposed national regulation to reduce hazardous air pollutant emissions from mobile sources. As part of this proposed mobile sources rule, U.S. EPA proposed standards that would limit VOC emissions from PFCs.

VOC emissions reductions will be realized sooner if PFC standards are adopted at the state level, as has already been done in 13 other states and in the District of Columbia. At this time, it is uncertain how long the proposed federal PFC rule will be under consideration prior to an effective date for the federal rule.

#### **Potential Fiscal Impact**

Analysis of costs related to a rule modeled after California's PFC VOC emission reduction program is derived from U.S. EPA's February 2006 document titled "Draft Regulatory Impact Analysis: Control of Hazardous Air Pollutants from Mobile Sources". Chapter 10: Gas Can Costs outlines projected PFC costs related to meeting U.S. EPA's proposed federal emissions standards. Because California's revised program is essentially equivalent to the proposed federal requirements, U.S. EPA expects that manufacturers will be able to meet the requirements of both programs with a single gas can design that can be sold under either regulatory scheme.

Potential Fiscal Impact of Alternative 1. This alternative is expected to have a minimal net fiscal impact. U.S. EPA's cost analysis focuses on costs associated with the production of multilayer gas cans, as U.S. EPA believes that most manufacturers will continue using this technology, which meets current California PFC standards. The weighted average cost per gas can for one, two, and five gallon containers is estimated at \$2.69 per can in additional cost as compared to the production cost of uncontrolled PFCs. U.S. EPA predicts that at an average life of five years for a gas can, 20.5 pounds of VOC emissions are reduced per PFC, resulting in fuel savings of 3.4 gallons. Fuel savings of 3.4 gallons per PFC results in discounted savings of \$4.24, more than an offset of the cost of controls. If the U.S. EPA's draft rule becomes final, then this alternative will likely have no fiscal impact beyond those caused by the federal requirements.

Potential Fiscal Impact of Alternative 2. This alternative is expected to have a minimal fiscal impact for the same reasons outlined under the Potential Fiscal Impact of Alternative 1. If the U.S. EPA's draft rule becomes final, then this alternative will have no fiscal impact beyond those caused by the federal requirements.

Potential Fiscal Impact of Alternative 3. No fiscal impact.

#### **Small Business Assistance Information**

IDEM established a compliance and technical assistance (CTAP) program under [IC 13-28-3](#). The program provides assistance to small businesses and information regarding compliance with environmental regulations. In accordance with [IC 13-28-3](#) and [IC 13-28-5](#), there is a small business assistance program ombudsman to provide a point of contact for small businesses affected by environmental regulations. Information on the CTAP program, the monthly CTAP newsletter, and other resources available can be found at [www.in.gov/idem/compliance/ctap/index.html](http://www.in.gov/idem/compliance/ctap/index.html).

Small businesses affected by this rulemaking may contact the Small Business Regulatory Coordinator:

Sandra El-Yusuf  
IDEM Compliance and Technical Assistance Program  
OPPTA - MC60-04  
100 N. Senate Avenue  
W-041  
Indianapolis, IN 46204-2251  
(317) 232-8578



selyusuf@idem.in.gov

The Small Business Assistance Program Ombudsman is:

Stacey Pfeffer

IDEM Office of Voluntary Compliance

OPPTA - MC60-04

100 N. Senate Avenue, W-041

Indianapolis, IN 46204-2251

(317) 233-5624

spfeffer@idem.in.gov

### **Public Participation and Workgroup Information**

At this time, no workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Sean Gorman, Rules Development Section, Office of Air at (317) 234-3533 or (800) 451-6027 (in Indiana).

### **STATUTORY AND REGULATORY REQUIREMENTS**

[IC 13-14-8-4](#) requires the board to consider the following factors in promulgating rules:

- (1) All existing physical conditions and the character of the area affected.
- (2) Past, present, and probable future uses of the area, including the character of the uses of surrounding areas.
- (3) Zoning classifications.
- (4) The nature of the existing air quality or existing water quality, as the case may be.
- (5) Technical feasibility, including the quality conditions that could reasonably be achieved through coordinated control of all factors affecting the quality.
- (6) Economic reasonableness of measuring or reducing any particular type of pollution.
- (7) The right of all persons to an environment sufficiently uncontaminated as not to be injurious to human, plant, animal, or aquatic life or to the reasonable enjoyment of life and property.

### **REQUEST FOR PUBLIC COMMENTS**

At this time, IDEM solicits the following:

- (1) The submission of alternative ways to achieve the purpose of the rule.
- (2) The submission of suggestions for the development of draft rule language.

Mailed comments should be addressed to:

#07-89(APCB) Portable Fuel Containers

Sean Gorman Mail Code 61-50

c/o Administrative Assistant

Rules Development Section

Office of Air Quality

Indiana Department of Environmental Management

100 North Senate Avenue

Indianapolis, Indiana 46204.

Hand delivered comments will be accepted by the IDEM receptionist on duty at the tenth floor reception desk, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules Section at (317) 233-0426.

### **COMMENT PERIOD DEADLINE**

Comments must be postmarked, faxed, or hand delivered by March 23, 2007.

Additional information regarding this action may be obtained from Sean Gorman, Rules Development Section, Office of Air Quality, (317) 234-3533 or (800) 451-6027 (in Indiana).

Kathryn A. Watson, Chief  
Air Programs Branch  
Office of Air Quality

*Posted: 02/21/2007 by Legislative Services Agency*

An [html](#) version of this document.

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**TITLE 326 AIR POLLUTION CONTROL BOARD**

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**FIRST NOTICE OF COMMENT PERIOD**

LSA Document #06-604

**DEVELOPMENT OF NEW RULES CONCERNING VOLATILE ORGANIC COMPOUNDS FOR ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS****PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on new rules at [326 IAC 8-14](#) concerning architectural and industrial maintenance coatings. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

**CITATIONS AFFECTED:** [326 IAC 8-14](#).

**AUTHORITY:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#).

**SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING****Basic Purpose and Background**

Under the Clean Air Act, the United States Environmental Protection Agency (U.S. EPA) is responsible for: (1) establishing ambient air quality standards to protect the public health and welfare; (2) determining which areas of the country have air quality that does not meet those standards; and (3) overseeing states' efforts to develop and implement plans to improve air quality in those areas. The Clean Air Act establishes basic requirements and procedures for the clean air planning process, but U.S. EPA issues more specific guidance to help states, citizens, businesses, and local governments comply with the Clean Air Act's requirements. U.S. EPA also promulgates rules to meet the Clean Air Act requirements.

In the April 30, 2004, Federal Register (69 FR 23858), the U.S. EPA published air quality designations and classifications for all areas in the United States for the eight-hour ozone National Ambient Air Quality Standard (8-hour standard), including the designation of 24 Indiana counties, entirely or in part, as nonattainment for the standard. The nonattainment designation became effective on June 15, 2004. The 8-hour ozone nonattainment designations have essentially replaced the former remaining 1-hour ozone nonattainment designations. Each state must put control measures into place in order to bring these areas into attainment by June 15, 2009. Indiana has submitted several ozone redesignation requests to U.S. EPA for approval and plans to submit requests for the remaining counties soon; however, further controls will help keep these counties in attainment once they are redesignated and will also help eliminate Indiana's contribution to other states' nonattainment areas.

Because volatile organic compounds (VOCs) contribute to the formation of ozone, it is important to control VOCs in order to comply with the 8-hour ozone standard. In an effort to assist states in the Midwest Regional Planning Organization (MRPO) in the development of SIPs to comply with the federal requirements, the Lake Michigan Air Directors Consortium (LADCO) has been working with states to identify and recommend regional controls that would help states bring areas back into attainment for the 8-hour ozone standard. The MRPO includes Illinois, Indiana, Michigan, Ohio, and Wisconsin.

The MRPO states have discussed applying certain VOC control measures to all counties in the region in order to provide a general benefit to all nonattainment areas. LADCO has evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. Based on discussions with other states in the MRPO and information provided by LADCO, IDEM proposes to develop an architectural and industrial maintenance (AIM) coatings rule for Indiana as part of a larger regional effort. This rule is part of a larger group of VOC control rules that have been agreed to by the LADCO states to address regional ozone and particulate matter nonattainment. Other VOC control rules will include automobile refinishing, consumer products, degreasing, portable fuel containers, and stage I vapor recovery.

AIM coatings are applied to a variety of surfaces and may be applied by brush, roller, or spray gun and by consumers, painting contractors, or maintenance personnel. VOC emissions result from the evaporation of solvents in the coatings during application and drying. U.S. EPA published the federal AIM coatings rule on September 11, 1998 (63 FR 48848) (40 CFR Part 59 Subpart D) under authority of Section 183(e) of the Clean Air Act. This rule limits the amount of VOC that manufacturers and importers of AIM coatings can put into their products. The rule also has container labeling requirements for AIM coatings. There are different options for complying with the VOC limits, including exemptions for products that may be hard to reformulate. VOC content limits in the national rule took effect on September 11, 1999. The Federal AIM rule is estimated to yield VOC reductions of 20 percent from uncontrolled levels.

U.S. EPA defines an architectural coating as "a coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs. This definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for

application to non-stationary structures, such as airplanes, ships, boats, and railcars."

U.S. EPA defines an industrial maintenance coating as "a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated and recommended for application to substrates exposed to one or more of the following extreme environmental conditions in an industrial, commercial, or institutional setting:

- (1) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
- (2) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
- (3) Repeated exposure to temperatures above 120°C (250°F);
- (4) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
- (5) Exterior exposure of metal structures and structural components."

On August 31, 2005, U.S. EPA published an Advance Notice of Proposed Rulemaking on AIM Coatings. The comment period was extended on October 13, 2005, and December 20, 2005, and requested comment, data, and information for determining how to calculate VOC reductions from AIM coatings in nonattainment and maintenance areas. After the information has been considered, U.S. EPA will determine the next steps, which may include federal rulemaking. IDEM will monitor the federal effort and consider its implications in this state rulemaking.

In an effort to assist northeastern states to meet and maintain the ozone National Ambient Air Quality Standards (NAAQS), the Ozone Transport Commission (OTC) formed a workgroup to consider a model rule to reduce VOC emissions in AIM coatings. The workgroup formed for this purpose conducted meetings and received comments from interested parties that resulted in a recommendation that the OTC AIM Coatings model rule be the same as the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) federal model rule. STAPPA/ALAPCO is now the National Association of Clean Air Agencies (NACAA). The OTC identified several implementation options applicable to states in the northeast. The model rule was established at a level at which a substantial number of coatings already exist that comply with the VOC content limits for each product category. In conjunction with the OTC model rule, LADCO considered implementation of a Wisconsin rule limiting the VOC content of traffic markings in the MRPO states. For certain categories of coatings, LADCO estimates that implementation of the OTC model rule and Wisconsin traffic marking rule will reduce VOC emissions by about 20% beyond the federal AIM rule, or 2,986 tons VOC per year in Indiana.

In combination with similar efforts in the other MRPO states, adding an architectural and industrial maintenance coatings rule in Indiana will contribute to a regional control of VOC that will assist many counties to reach attainment for the 8-hour ozone standard. Upon completion, this rule will be submitted to U.S. EPA for approval into the SIP and, along with other regional and state measures, will guide air pollution control efforts in Indiana.

#### **Alternatives To Be Considered Within the Rulemaking**

Alternative 1. No rulemaking.

Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.

Is this alternative imposed by federal law or is there a comparable federal law? No.

If it is a federal requirement, is it different from federal law? Not applicable.

If it is different, describe the differences. Not applicable.

Alternative 2. Adopt the OTC model rule and Wisconsin traffic markings rule.

Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.

Is this alternative imposed by federal law or is there a comparable federal law? No, this alternative is not imposed by federal law, but U.S. EPA gives Indiana the flexibility to select appropriate alternatives in order to meet the requirements of the federal law in a timely manner. This alternative controls VOCs which contribute to ground-level ozone and visibility impairment in additional counties of the state.

If it is a federal requirement, is it different from federal law? No, it is not different from federal law, but is a means of complying with existing federal laws.

If it is different, describe the differences. Not applicable.

#### **Applicable Federal Law**

40 CFR 50 (National Primary and Secondary Ambient Air Quality Standards), 40 CFR 81 (Designation of Areas for Air Quality Planning Purposes), 40 CFR 51, Appendix Y (Guidelines for BART Determinations Under the Regional Haze Rule), and 40 CFR 59, Subpart D (National Volatile Organic Compound Emission Standards for Architectural Coatings) are applicable federal laws impacting this rulemaking. 40 CFR 50 (amended on July 18, 1997 (62 FR 38856)) contains the standards for criteria pollutants. Ozone is considered a criteria pollutant and air pollution controls reduce emissions of VOCs to reduce ozone formation. 40 CFR 81 (amended on April 30, 2004 (69 FR 23858)) lists the areas of the United States, specific to each state, that U.S. EPA has determined are not attaining the standards (nonattainment) for criteria pollutants such as ozone. 40 CFR 59 Subpart D currently

applies to manufacturers of architectural coatings for sale or distribution in the United States.

### **Potential Fiscal Impact**

Potential Fiscal Impact of Alternative 1. No fiscal impact.

Potential Fiscal Impact of Alternative 2. This alternative is expected to impose a cost to affected parties in Indiana that would otherwise be in noncompliance with the new rule. However, it is unclear to what extent companies may need to reformulate coatings to meet new requirements, therefore, a cost cannot be calculated yet. Additional information is being gathered to address the fiscal impact of this alternative, including from U.S. EPA, which is considering a national AIM rule. IDEM welcomes comments on the fiscal impact of an AIM rule in Indiana.

### **Small Business Assistance Information**

IDEM established a compliance and technical assistance (CTAP) program under [IC 13-28-3](#). The program provides assistance to small businesses and information regarding compliance with environmental regulations. In accordance with [IC 13-28-3](#) and [IC 13-28-5](#), there is a Small Business Assistance Program Ombudsman to provide a point of contact for small businesses affected by environmental regulations. Information on the CTAP program, the monthly CTAP newsletter, and other resources available can be found at [www.in.gov/idem/compliance/ctap/index.html](http://www.in.gov/idem/compliance/ctap/index.html)

Small businesses affected by this rulemaking may contact the Small Business Regulatory Coordinator:

Sandra El-Yusuf  
IDEM Compliance and Technical Assistance Program  
OPPTA - MC60-04  
100 N. Senate Avenue  
W-041  
Indianapolis, IN 46204-2251  
(317) 232-8578  
[selyusuf@idem.in.gov](mailto:selyusuf@idem.in.gov)

The Small Business Assistance Program Ombudsman is:

Stacey Pfeffer  
IDEM Office of Voluntary Compliance  
OPPTA - MC60-04  
100 N. Senate Avenue, W-041  
Indianapolis, IN 46204-2251  
(317) 233-5624  
[spfeffer@idem.in.gov](mailto:spfeffer@idem.in.gov)

### **Public Participation and Workgroup Information**

At this time, no workgroup is planned for this rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Christine Pedersen, Rules Section, Office of Air Quality at (317) 233-6868 or (800) 451-6027 (in Indiana).

### **STATUTORY AND REGULATORY REQUIREMENTS**

[IC 13-14-8-4](#) requires the board to consider the following factors in promulgating rules:

- (1) All existing physical conditions and the character of the area affected.
- (2) Past, present, and probable future uses of the area, including the character of the uses of surrounding areas.
- (3) Zoning classifications.
- (4) The nature of the existing air quality or existing water quality, as the case may be.
- (5) Technical feasibility, including the quality conditions that could reasonably be achieved through coordinated control of all factors affecting the quality.
- (6) Economic reasonableness of measuring or reducing any particular type of pollution.
- (7) The right of all persons to an environment sufficiently uncontaminated as not to be injurious to human, plant, animal, or aquatic life or to the reasonable enjoyment of life and property.

### **REQUEST FOR PUBLIC COMMENTS**

At this time, IDEM solicits the following:

- (1) The submission of alternative ways to achieve the purpose of the rule.
- (2) The submission of suggestions for the development of draft rule language.

Mailed comments should be addressed to:

#06-604(APCB) AIM Coatings  
Christine Pedersen Mail Code 61-50  
c/o Administrative Assistant  
Rules Development Section  
Office of Air Quality

Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204.

Hand delivered comments will be accepted by the IDEM receptionist on duty at the tenth floor reception desk, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules Section at (317) 233-0426.

**COMMENT PERIOD DEADLINE**

Comments must be postmarked, faxed, or hand delivered by February 9, 2007.

Additional information regarding this action may be obtained from Christine Pedersen, Rules Development Section, Office of Air Quality, (317) 233-6868 or (800) 451-6027 (in Indiana).

Kathryn A. Watson, Chief  
Air Programs Branch  
Office of Air Quality

*Posted: 01/10/2007 by Legislative Services Agency*  
An [html](#) version of this document.

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**TITLE 326 AIR POLLUTION CONTROL BOARD**

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**FIRST NOTICE OF COMMENT PERIOD**

LSA Document #06-603

**DEVELOPMENT OF AMENDMENTS TO RULES CONCERNING VOLATILE ORGANIC COMPOUNDS FOR AUTOMOBILE REFINISHING OPERATIONS IN INDIANA****PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on amendments to [326 IAC 8-10](#) concerning automobile refinishing operations in Indiana. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

**CITATIONS AFFECTED:** [326 IAC 8-10](#).

**Authority:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#).

**SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING****Basic Purpose and Background**

Under the Clean Air Act, the United States Environmental Protection Agency (U.S. EPA) is responsible for: (1) establishing ambient air quality standards to protect the public health and welfare; (2) determining which areas of the country have air quality that does not meet those standards; and (3) overseeing states' efforts to develop and implement plans to improve air quality in those areas. The Clean Air Act establishes basic requirements and procedures for the clean air planning process, but U.S. EPA issues more specific guidance to help states, citizens, businesses and local governments comply with the Clean Air Act's requirements. U.S. EPA also promulgates rules to meet the Clean Air Act requirements.

In the April 30, 2004, Federal Register (69 FR 23858), the U.S. EPA published air quality designations and classifications for all areas in the United States for the eight-hour ozone National Ambient Air Quality Standard (8-hour standard), including the designation of 24 Indiana counties, entirely or in part, as nonattainment for the standard. The nonattainment designation became effective on June 15, 2004. The 8-hour ozone nonattainment designations have essentially replaced the former remaining 1-hour ozone nonattainment designations. Each state must put control measures into place in order to bring these areas into attainment by June 15, 2009. Indiana has submitted several ozone redesignation requests to U.S. EPA for approval and plans to submit requests for the remaining counties soon; however, further controls will help keep these counties in attainment once they are redesignated and will also help eliminate Indiana's contribution to other states' nonattainment areas.

Because volatile organic compounds (VOCs) contribute to the formation of ozone, it is important to control VOCs in order to comply with the 8-hour ozone standard. In an effort to assist states in the Midwest Regional Planning Organization (MRPO) in the development of SIPs to comply with the federal requirements, the Lake Michigan Air Directors Consortium (LADCO) has been working with states to identify and recommend regional controls that would help states bring areas back into attainment for the 8-hour ozone standard. The MRPO includes Illinois, Indiana, Michigan, Ohio, and Wisconsin.

The MRPO states have discussed applying certain VOC control measures to all counties in the region in order to provide a general benefit to all nonattainment areas. LADCO has evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. Based on discussions with other states in the MRPO and information provided by LADCO, IDEM proposes to extend the existing automobile refinishing rules currently effective in Clark, Floyd, Lake, and Porter counties to the rest of the state as part of a larger regional effort. This rule is part of a larger group of VOC control rules that have been agreed to by the LADCO states to address regional ozone and particulate matter nonattainment. Other VOC control rules will include architectural and industrial maintenance (AIM) coatings, consumer products, degreasing, portable fuel containers, and stage I vapor recovery.

Automobile refinishing includes the application of coatings subsequent to original equipment manufacture. Vehicles included in this category are passenger cars, trucks, vans, motorcycles, and other mobile equipment capable of being driven or drawn on the highway. The steps involved in automobile refinishing include surface preparation, surface painting, and equipment cleaning. Emissions occur at all of these stages due to evaporation of the solvents in the primers, paints, and other coatings and in the cleaning solutions. The automobile refinishing rule at [326 IAC 8-10](#) affects automobile refinishing operations performed in the following types of shops: auto body and repair shops; new car dealer repair and paint shops; fleet operator repair and paint shops; and any other facility that coats vehicles under Standard Industrial Classification (SIC) Code 7532, as well as manufacturers and distributors of automobile refinishing coatings. Besides VOC content limits, [326 IAC 8-10](#) also includes work practice standards and training requirements.

Indiana's existing automobile refinishing rule at [326 IAC 8-10](#) currently applies to four counties: Clark, Floyd,



Lake, and Porter. These counties were 1-hour ozone nonattainment areas, and the rule was promulgated to assist bringing these counties into attainment. The existing rule is based on both emission limits from the federal automobile refinishing coatings rule at 40 CFR 59, Subpart B, and work practices from the Ozone Transport Commission (OTC) model rule for automobile refinishing operations. The OTC is a multistate organization created under the Clean Air Act (CAA) that advises U.S. EPA on transport issues and develops and implements regional solutions to the ground level ozone problem in the Northeast and Mid-Atlantic regions.

Automobile refinishing operations across Indiana must already comply with the federal rule, so, for operations not currently covered by the state rule, extending the existing state rule to the entire state would only provide the option of meeting the emission limits through the use of a control system rather than the emission limits and require work practices for operations not currently covered by the state rule. LADCO estimates that extending the existing Indiana automobile refinishing rule to the entire state will reduce VOCs by approximately 25% from 2002 actual emissions or 2,528 tons per year. A review of data specific to Indiana indicates a reduction of approximately 9% beyond the reductions from the federal rule is more realistic. However, an informal survey of automobile refinishing operations in central Indiana conducted by IDEM in 2005 showed that the high-volume low-pressure (HVLP) equipment is already in use by most operations because of the increased efficiency, safety, and overall cost savings of using the newer technology. The operations contacted have also already implemented improved work practices.

In combination with similar efforts in the other MRPO states, extending the automobile refinishing rules to all Indiana counties will contribute to a regional control of VOC that will assist many counties to reach and maintain attainment for the 8-hour ozone standard. Upon completion, this rule will be submitted to U.S. EPA for approval into the SIP and, along with other regional and state measures, will guide air pollution control efforts in Indiana.

#### **Alternatives To Be Considered Within the Rulemaking**

Alternative 1. Extending applicability of the automobile refinishing rules to the entire state.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? 40 CFR 59 contains VOC limits that are comparable to the VOC limits in Indiana's existing rule. However, extension of this alternative to the entire state would impose work practice standards that are not in federal law and would offer an option to use a control system rather than meet the VOC limits in order to reduce VOC emissions. In addition, U.S. EPA gives Indiana the flexibility to select appropriate alternatives in order to bring nonattainment areas back into attainment in a timely manner. This alternative controls volatile organic compounds which contribute to ground level ozone and visibility impairment in all counties of the state.
- If it is a federal requirement, is it different from federal law? No, it is not different from federal law, but is a means of complying with existing federal laws.
- If it is different, describe the differences. Not applicable.

Alternative 2. Extending applicability of the automobile refinishing rules to additional counties, but not the entire state.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No.
- Is this alternative imposed by federal law or is there a comparable federal law? 40 CFR 59 contains VOC limits that are comparable to the VOC limits in Indiana's existing rule. However, extension of this alternative to the entire state would impose work practice standards that are not in federal law and would offer an option to use a control system rather than meet the VOC limits in order to reduce VOC emissions. In addition, U.S. EPA gives Indiana the flexibility to select appropriate alternatives in order to bring nonattainment areas back into attainment in a timely manner. This alternative controls volatile organic compounds which contribute to ground level ozone and visibility impairment in all counties of the state.
- If it is a federal requirement, is it different from federal law? No, it is not different from federal law, but is a means of complying with existing federal laws.
- If it is different, describe the differences. Not applicable.

Alternative 3. No rulemaking.

- Is this alternative an incorporation of federal standards, either by reference or full text incorporation? No
- Is this alternative imposed by federal law or is there a comparable federal law? No
- If it is a federal requirement, is it different from federal law? Not applicable.
- If it is different, describe the differences. Not applicable.

#### **Applicable Federal Law**

40 CFR 50 (National Primary and Secondary Ambient Air Quality Standards), 40 CFR 81 (Designation of Areas for Air Quality Planning Purposes), and 40 CFR 59, Subpart B (National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings) are applicable federal laws impacting this rulemaking. 40 CFR 50 (amended on July 18, 1997 (62 FR 38856)) contains the standards for criteria pollutants. Ozone is considered a criteria pollutant and air pollution controls reduce emissions of volatile organic compounds (VOC) to reduce ozone formation. 40 CFR 81 (amended on April 30, 2004 (69 FR 23858)) lists the areas of the United States, specific to each state, that U.S. EPA has determined are not attaining the standards (nonattainment) for criteria pollutants such as ozone. 40 CFR 59, Subpart B, currently applies to manufacturers of coatings used in

automobile refinishing operations in Indiana. The state rule for automobile refinishing, [326 IAC 8-10](#), applies to manufacturers of the coatings as well as to the businesses that conduct the refinishing operation.

#### **Potential Fiscal Impact**

In analyzing costs for automobile refinishing rules in the MRPO states, LADCO used estimates from the Ozone Transport Commission (OTC) because the state rules, including Indiana's rule, are similar to the OTC Model Rule.

Potential Fiscal Impact of Alternative 1. Though the OTC estimated a cost of \$1,354 per ton of VOC reduced based on the use of HVLP spray guns and a gun cleaning system, Indiana's rule would not require this equipment but would allow its use as an alternative to meeting the specific VOC limits. In addition, the VOC limits in Indiana's existing rule are comparable to the existing federal rule, 40 CFR 59, that all Indiana automobile refinishers and manufacturers of the applicable coatings must comply with now. An informal survey of automobile refinishing operations in central Indiana in 2005 showed that the HVLP equipment is already in use by most operations because of the increased efficiency, safety, and overall cost savings of using the newer technology. IDEM believes this is true throughout the state and that most of these operations have probably also already begun using improved work practices comparable to those specified in the existing state rule to increase safety and maintain the equipment. Therefore, because automobile refinishers already must comply with the federal VOC limits and because most already use the type of control systems and work practices in the existing Indiana rule, IDEM anticipates that the fiscal impact of this alternative is minimal to the regulated community.

Potential Fiscal Impact of Alternative 2. This alternative is expected to have a minimal fiscal impact for the same reasons outlined under the Potential Fiscal Impact of Alternative 1.

Potential Fiscal Impact of Alternative 3. No fiscal impact.

#### **Small Business Assistance Information**

IDEM established a compliance and technical assistance (CTAP) program under [IC 13-28-3](#). The program provides assistance to small businesses and information regarding compliance with environmental regulations. In accordance with [IC 13-28-3](#) and [IC 13-28-5](#), there is a small business assistance program ombudsman to provide a point of contact for small businesses affected by environmental regulations. Information on the CTAP program, the monthly CTAP newsletter, and other resources available can be found at [www.in.gov/idem/compliance/ctap/index.html](http://www.in.gov/idem/compliance/ctap/index.html)

Small businesses affected by this rulemaking may contact the Small Business Regulatory Coordinator:

Sandra El-Yusuf  
IDEM Compliance and Technical Assistance Program  
OPPTA - MC60-04  
100 N. Senate Avenue  
W-041  
Indianapolis, IN 46204-2251  
(317) 232-8578  
[selyusuf@idem.in.gov](mailto:selyusuf@idem.in.gov)

The Small Business Assistance Program Ombudsman is:

Stacey Pfeffer  
IDEM Office of Voluntary Compliance  
OPPTA - MC60-04  
100 N. Senate Avenue, W-041  
Indianapolis, IN 46204-2251  
(317) 233-5624  
[spfeffer@idem.in.gov](mailto:spfeffer@idem.in.gov)

#### **Public Participation and Workgroup Information**

At this time, no workgroup is planned for this rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Christine Pedersen, Rules Section, Office of Air Quality at (317) 233-6868 or (800) 451-6027 (in Indiana).

#### **STATUTORY AND REGULATORY REQUIREMENTS**

[IC 13-14-8-4](#) requires the board to consider the following factors in promulgating rules:

- (1) All existing physical conditions and the character of the area affected.
- (2) Past, present, and probable future uses of the area, including the character of the uses of surrounding areas.
- (3) Zoning classifications.
- (4) The nature of the existing air quality or existing water quality, as the case may be.
- (5) Technical feasibility, including the quality conditions that could reasonably be achieved through coordinated control of all factors affecting the quality.
- (6) Economic reasonableness of measuring or reducing any particular type of pollution.



- (7) The right of all persons to an environment sufficiently uncontaminated as not to be injurious to human, plant, animal, or aquatic life or to the reasonable enjoyment of life and property.

#### **REQUEST FOR PUBLIC COMMENTS**

At this time, IDEM solicits the following:

- (1) The submission of alternative ways to achieve the purpose of the rule.
- (2) The submission of suggestions for the development of draft rule language.

Mailed comments should be addressed to:

#06-603(APCB) Automobile Refinishing  
Christine Pedersen Mail Code 61-50  
c/o Administrative Assistant  
Rules Development Section  
Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204.

Hand delivered comments will be accepted by the IDEM receptionist on duty at the tenth floor reception desk, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules Section at (317) 233-0426.

#### **COMMENT PERIOD DEADLINE**

Comments must be postmarked, faxed, or hand delivered by January 26, 2007.

Additional information regarding this action may be obtained from Christine Pedersen, Rules Development Section, Office of Air Quality, (317) 233-6868 or (800) 451-6027 (in Indiana).

Kathryn A. Watson, Chief  
Air Programs Branch  
Office of Air Quality

*Posted: 12/27/2006 by Legislative Services Agency*

An [html](#) version of this document.

**Document:** IC 13-14-9 Notice, **Register Page Number:** 29 IR 1013

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## **TITLE 326 AIR POLLUTION CONTROL BOARD**

### **SECOND NOTICE OF COMMENT PERIOD**

LSA Document #05-165(APCB)

## **DEVELOPMENT OF AMENDMENTS TO RULES CONCERNING VOLATILE ORGANIC COMPOUNDS IN ORGANIC SOLVENT DEGREASERS IN CENTRAL INDIANA**

### **PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) has developed draft rule language for amendments to 326 IAC 8-3 concerning volatile organic compounds in organic solvent degreasers in Central Indiana. By this notice, IDEM is soliciting public comment on the draft rule language. IDEM seeks comment on the affected citations listed and any other provisions of Title 326 that may be affected by this rulemaking.

### **HISTORY**

First Notice of Comment Period: July 1, 2005, Indiana Register (28 IR 3054).

**CITATIONS AFFECTED:** 326 IAC 8-3-1; 326 IAC 8-3-8.

**AUTHORITY:** IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12.

### **SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**

#### **Basic Purpose and Background**

In the April 30, 2004, Federal Register (69 FR 23858), the United States Environmental Protection Agency (U.S. EPA) designated nine (9) counties in the central Indiana region as nonattainment for the 8-hour ozone National Ambient Air Quality Standard (8-hour standard). A nonattainment designation means that ozone levels, measured by air monitors, have exceeded federal health standards on at least some days during the summer ozone season in recent years. The affected counties are: Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby. Indiana must put control measures into place in order to bring these counties into attainment by June 15, 2009.

Ozone is not emitted directly into the air, but is created by a chemical reaction between oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of heat and sunlight. The pollutants that form ozone, NO<sub>x</sub> and VOC, are emitted from a number of sources including motor vehicle exhaust, industrial emissions, gasoline vapors, commercial and residential fuel burning and solvent use.

A nonattainment designation triggers planning requirements for existing sources of air pollution, stricter requirements for certain types of new and expanding facilities that emit air pollution, certain changes in transportation planning and funding and, potentially, additional clean air measures. Indiana must develop a plan detailing the steps necessary to comply with the standard by the attainment date. Preliminary technical analyses indicate that new national and regional controls, including a NO<sub>x</sub> control rule for power plants, new motor vehicle and diesel engine standards, and new gasoline and diesel fuel standards, may bring Central Indiana into attainment of the standard, but additional reasonable controls will help to ensure compliance by 2009.

IDEM is working with local government, businesses, and citizens and other interested groups to develop a strategy that will achieve attainment in Central Indiana with feasible and cost-effective programs. IDEM established the Central Indiana Air Quality Advisory Group (CIAQAG) in September 2003 to study alternatives for inclusion in the Central Indiana state implementation plan (SIP). CIAQAG's preliminary recommendations for control measures presented at the September 30, 2005 meeting may be viewed at [www.in.gov/idem/air/ciaqag](http://www.in.gov/idem/air/ciaqag). One of the regulatory measures recommended, and the subject of this rulemaking, is VOC controls on degreasing operations at commercial and industrial sources. It is estimated that implementation of degreasing requirements in Central Indiana will provide a two and seven-tenths percent (2.7%) total annualized reduction of VOCs or a reduction of six (6) tons per summer day. Sources in Clark, Floyd, Lake, and Porter Counties have been subject to these requirements since 1999.

Control measures need to be implemented in advance in order to collect data necessary to demonstrate attainment in Central Indiana by June 15, 2009. Allowing a phase-in compliance schedule for sources to obtain the necessary solvents, IDEM is proposing an effective date of April 1, 2007. IDEM seeks comments from potentially affected sources in the nine (9) county region regarding

the timing of implementation of this rule and other control measures to demonstrate attainment in Central Indiana by June 15, 2009.

#### **IC 13-14-9-4 Identification of Restrictions and Requirements Not Imposed Under Federal Law**

None of the elements of the draft rule are specifically imposed by federal law. However, the draft rule represents an appropriate alternative to help meet the federal law requirement of attainment in central Indiana. The materials IDEM relied on in the development of the draft rule are available to the public for public inspection at the Office of Air Quality.

#### **Potential Fiscal Impact**

Economic impacts will be based on costs of providing and purchasing compliant solvents. In 1998, other states adopting similar rules estimated cost efficiencies at \$238 to \$779 per ton of VOC reduced. Many of the affected sources are currently not required to report these emissions to IDEM and, therefore, IDEM does not have any indication how many sources will be affected in the 9-county Central Indiana area. IDEM specifically solicits comment on the potential fiscal impact of the draft rule language proposed in this rulemaking.

#### **Public Participation and Work Group Information**

The Central Indiana Air Quality Advisory Group (CIAQAG) was established in September 2003, to study alternatives for reducing ozone in Central Indiana to demonstrate attainment. This group is comprised of business, government officials, and citizens and has met to hear presentations, discuss regulatory and voluntary alternatives to reduce ozone, and make recommendations on alternatives appropriate in Central Indiana. These meetings are open to the public. Additional information may be found at <http://www.in.gov/idem/air/ciaqag/>.

At this time, no additional workgroup is planned for this rulemaking, but the department is planning outreach efforts to affected sources during the course of the rulemaking and plans to provide compliance assistance. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Suzanne Whitmer, Rules Section, Office of Air Quality at (317) 232-8229 or (800) 451-6027 (in Indiana).

#### **SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD**

IDEM requested public comment from July 1, 2005, through August 1, 2005, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following parties by the comment period deadline:

Vacumet Corp. (VC)

Following is a summary of the comments received and IDEM's responses thereto:

*Comment:* The total amount of degreaser solvents this facility uses annually is about 30 gallons or 200 pounds. We estimate a decrease of 0.02 lbs/hour of fugitive emissions with these proposed amendments. We perceive there will be a cost increase estimated at more than \$100 per year. Unless there is a much larger amount of degreaser use in the nine (9) county region available for changing over to non-VOC degreasers, the amount would be much less than VOC emissions from driving a new vehicle on an average daily work commute.

We recommend the amendments be tempered with an offset such as banked emissions or some similar credit or incentive; monetary or non-monetary. In addition, a transition time of six (6) months to one (1) year after adoption will be needed to allow for an orderly change from one (1) degreaser to another. All permit holders in the nine-county region should be notified of the change by mail. IDEM's Rule Development Section needs to conduct an assessment of the total amount of VOC's that will be removed with the adoption of the proposed amendments. We believe that if the estimated amounts of decreased emissions are similar to what we have calculated, this rule change might be perceived as singling out small sources, thereby creating a credibility issue. (VC)

*Response:* Costs of solvents should be offset with less solvent usage because there will be a lower rate of evaporation. U.S. EPA requires permanent, enforceable reductions of ozone precursors in nonattainment areas, so no offsets are possible. IDEM is proposing an April 1, 2007, compliance date. The rule should be effective by mid-summer 2006, allowing greater than six (6) months compliance time. IDEM has, and will continue to, conduct outreach mailings to degreasing operations and solvent suppliers concerning the recommended rule amendments. Additional outreach and education will be provided by the solvent suppliers once the rule is effective. IDEM has estimated that implementation of the degreasing requirements in Central Indiana will provide a reduction of six (6) tons per summer day or two and seven-tenths percent (2.7%) total annualized reduction.

State and federal air quality plans and regulations have addressed the significant sources of air pollution in the central Indiana area. States are now looking further into the emission inventory to identify other categories where emissions reductions can be achieved cost effectively. IDEM is developing a low Reid Vapor Pressure rule to reduce VOCs from automobiles. Degreasing operations are a significant source of VOC emissions relative to industrial and other area sources. The CIAQAG has recommended that IDEM proceed with this rulemaking.

#### **REQUEST FOR PUBLIC COMMENTS**

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Mailed comments should be addressed to:

#05-165(APCB) Central Indiana VOC

Suzanne Whitmer Mail Code 61-50  
c/o Administrative Assistant  
Rules Development Section  
Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204.

Hand delivered comments will be accepted by the receptionist on duty at the Tenth Floor reception desk, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-2342, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules Development Section at (317) 233-0426.

#### **COMMENT PERIOD DEADLINE**

Comments must be postmarked, faxed, or hand delivered by January 3, 2006.

Additional information regarding this action may be obtained from Suzanne Whitmer, Rules Development Section, Office of Air Quality, (317) 232-8229 or (800) 451-6027 (in Indiana).

#### **DRAFT RULE**

SECTION 1. 326 IAC 8-3-1 IS AMENDED TO READ AS FOLLOWS:

#### **326 IAC 8-3-1 Applicability**

**Authority:** IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

**Affected:** IC 13-17-3

Sec. 1. (a) Sections 2 through 4 of this rule apply to the following:

(1) Existing facilities as of January 1, 1980, performing organic solvent degreasing operations located in:

- (A) Clark County;
- (B) Elkhart County;
- (C) Floyd County;
- (D) Lake County;
- (E) Marion County;
- (F) Porter County; and
- (G) St. Joseph County;

and which are located at sources which have potential emissions of ninety and seven-tenths (90.7) megagrams (one hundred (100) tons) or greater per year of VOC.

(2) New facilities after January 1, 1980, performing organic solvent degreasing operations located anywhere in the state.

(b) Sections 5 through 7 of this rule apply to the following:

(1) The following facilities performing organic solvent degreasing operations located in Clark, Elkhart, Floyd, Lake, Marion, Porter, and St. Joseph counties existing as of July 1, 1990:

- (A) Cold cleaner degreasers without remote solvent reservoirs.
- (B) Open top vapor degreasers with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater.
- (C) ConveyORIZED degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater.

These facilities shall attain compliance with this rule no later than July 1, 1991.

(2) Any new facility, construction of which commences after July 1, 1990, of the types described in subdivision (1) located in any county.

(c) Section 8 of this rule applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaning degreasers in the following counties:

**(1) Effective May 27, 1999, the effective date of this subdivision, the following:**

- (+) (A) Clark County.
- (-) (B) Floyd County.

~~(3)~~ (C) Lake County.

~~(4)~~ (D) Porter County.

(2) Effective April 1, 2007, the following:

(A) Boone County.

(B) Hamilton County.

(C) Hancock County.

(D) Hendricks County.

(E) Johnson County.

(F) Madison County.

(G) Marion County.

(H) Morgan County.

(I) Shelby County.

*(Air Pollution Control Board; 326 IAC 8-3-1; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)*

SECTION 2. 326 IAC 8-3-8 IS AMENDED TO READ AS FOLLOWS:

**326 IAC 8-3-8 Material and record keeping requirements for cold cleaning degreasers**

**Authority:** IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

**Affected:** IC 13-17-3

Sec. 8. (a) This section applies to the users, providers, and manufacturers of solvents for use in cold cleaning degreasers in:

(1) Clark County;

(2) Floyd County;

(3) Lake ~~and~~ County;

(4) Porter ~~Counties~~, County;

(5) Boone County;

(6) Hamilton County;

(7) Hancock County;

(8) Hendricks County;

(9) Johnson County;

(10) Madison County;

(11) Marion County;

(12) Morgan County; and

(13) Shelby County;

except for solvents intended to be used to clean electronic components.

(b) As used in this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:

(1) Circuit board assemblies.

(2) Printed wire assemblies.

(3) Printed circuit boards.

(4) Soldered joints.

(5) Ground wires.

(6) Bus bars.

(7) Any other associated electronic component manufacturing equipment.

(c) Material requirements are phased in as follows:

(1) On and after November 1, 1999, no person in **Clark, Floyd, Lake, and Porter counties** shall do the following:

(A) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(B) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) On and after May 1, 2001, no person in **Clark, Floyd, Lake, and Porter counties** shall do the following:  
(A) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(B) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(3) On and after April 1, 2007, no person in **Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties** shall do the following:

(1) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(2) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(d) On and after November 1, 1999, in **Clark, Floyd, Lake, and Porter counties** and on and after April 1, 2007, in **Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties**, the following record keeping requirements shall be followed:

(1) All persons subject to the requirements of subsection ~~(c)(1)(A)~~ and ~~(c)(2)(A)~~ (c) shall maintain all of the following records for each sale:

(A) The name and address of the solvent purchaser.

(B) The date of sale.

(C) The type of solvent.

(D) The volume of each unit of solvent sold.

(E) The total volume of the solvent.

(F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) All persons subject to the requirements of subsection ~~(c)(1)(B)~~ and ~~(c)(2)(B)~~ shall maintain each of the following records for each purchase:

(A) The name and address of the solvent supplier.

(B) The date of purchase.

(C) The type of solvent.

(D) The volume of each unit of solvent.

(E) The total volume of the solvent.

(F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(e) All records required by subsection ~~(d)~~ (e) shall be:

(1) retained on-site for the most recent three (3) year period; and ~~shall be~~

(2) reasonably accessible for an additional two (2) year period.

*(Air Pollution Control Board; 326 IAC 8-3-8; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)*

### **Notice of First Meeting/Hearing**

*Under IC 4-22-2-24, IC 13-14-8-6, and IC 13-14-9, notice is hereby given that on March 1, 2006, at 1:00 p.m., the Air Pollution Control Board will hold a public hearing on amendments to 326 IAC 8-3-1 and 326 IAC 8-3-8.*

*The purpose of this hearing is to receive comments from the public prior to preliminary adoption of these rules by the board. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed amendments. Oral statements will be heard, but, for the accuracy of the record, all comments should be submitted in writing.*

*Additional information regarding this action may be obtained from Suzanne Whitmer, Rules Development Section, Office of Air Quality, (317) 232-8229 or (800) 451-6027 (in Indiana).*

*Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:*

*Attn: ADA Coordinator  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204*

*or call (317) 233-0855 or (317) 232-6565 (TDD). Speech and hearing impaired callers may contact IDEM via the Indiana Relay Service at 1-800-743-3333. Please provide a minimum of 72 hours' notification.*

*Copies of these rules are now on file at the Office of Air Quality, Indiana Department of Environmental Management, Indiana Government Center-North, 100 North Senate Avenue, Tenth Floor East, and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public inspection.*

## Base K/Round 4 Strategy Modeling: Emissions

The purpose of this document is to summarize the emission estimates prepared for the latest 2002 base year (Base K) and 2008, 2009, 2012, and 2018 future year (Round 4) modeling. A list of the Round 4 modeling scenarios is provided in Table 1<sup>1</sup>. Sector-level emissions are presented in Figure 1 and Table 2. (For comparison, the sector-level emissions from Round 3 are presented in Figure 2.)

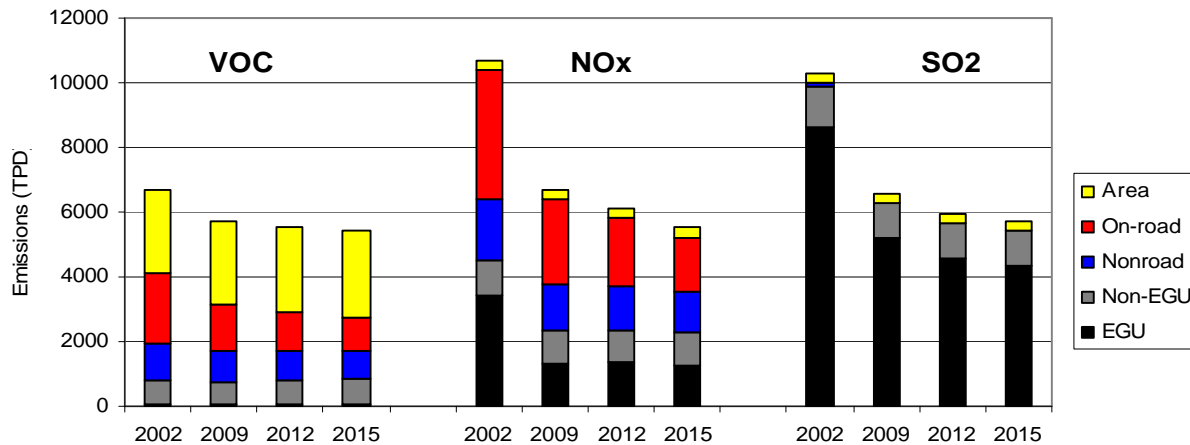


Figure 1. Round 4 Emissions Summary for 5-State LADCO Region (TPD, July weekday)

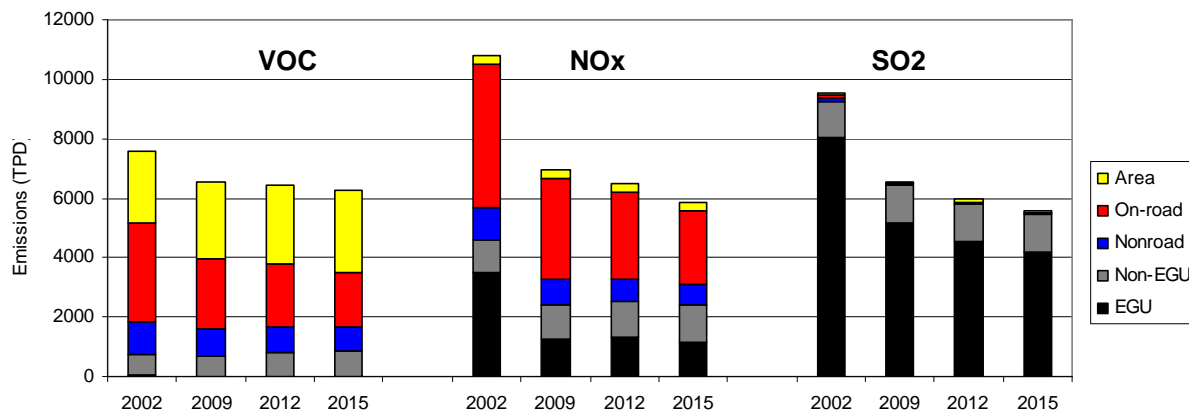


Figure 2. Round 3 Emissions Summary for 5-State LADCO Region (TPD, July weekday)

### Base Year Emissions

Updates to the 2002 base year emissions compared to Base J include:

- Revised motor vehicle emissions: The new emission estimates are about 40% lower for VOC and 25% for NOx. This change is due to a correction in the calculation of motor vehicle emissions by EMS. (Previously, EMS was averaging the 25 different vehicle age emission rates in the database output, instead of doing a weighted-average based on mileage accumulation.) EMS was run to generate 36 days (weekday, Saturday, Sunday for each month) at 36 km, and 12 days (weekday, Saturday, Sunday for June – August) at 12 km.

<sup>1</sup>

Two additional scenarios were included late in the Round 4 modeling: Scenario 4-reflects control measures under discussion by the MW and NE State Commissioners, and Scenario 5-reflects a control option developed by LADCO Project Team.



- Revised ammonia temporal profile: New temporal profiles were derived by several test runs of the new process based ammonia model. The previous profile was based on Pinder's process based model for dairy farms. The new profile reflects hogs, beef, and dairy. (We used hog farms to define poultry because the process based model does not have a fully functional poultry housing model.) It is probably most critical to see what happens during the colder months, because those are the months where we are generally ammonia limited (see Figure 3). One other change to the ammonia inventory was to remove the point source ammonia emissions from other RPO's inventories, because confined animal operations were included in the point source inventory for some states, which led to double-counting of emissions.

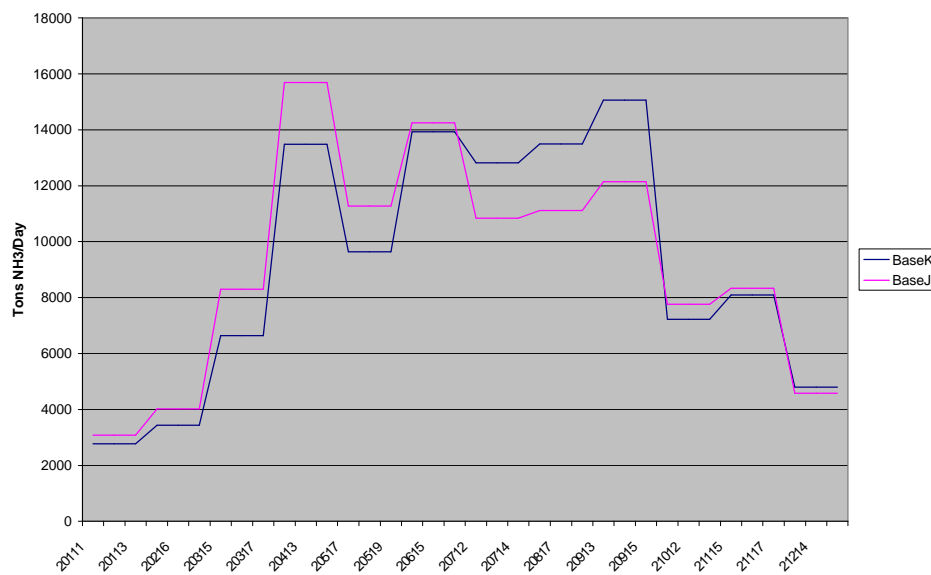


Figure 3. Base J v. Base K Regional Ammonia Emissions by Month

- Revised EGU temporal profile: Continuous emissions monitoring (CEM) data were processed to produce temporal profiles for EGUs which account for month of year, and day of week variations. Unit-specific profiles were developed. (Note, a contractor previously developed a limited number CEM-based temporal profiles, which were assigned to groups of EGUs, but these profiles became obsolete when the source ID numbers changed with the latest IPM modeling. For Base J, national default profiles were assumed.)
- New Canadian emissions: An updated inventory of Canadian stationary and mobile sources for 2000 was provided by Environment Canada. The new inventory reflects significantly lower emissions.
- Improved nonroad emissions: Two changes were made to the nonroad inventory: (1) commercial marine, airports, and railroads were included (note: these categories, which are not part of the NONROAD2004 model, were not included in Base J), and (2) NMIM (with NONROAD2004) was rerun with fuel parameter inputs consistent with the on-road emissions modeling (note – these emission estimates still do not include permeation effects).

- Point sources: All co-generation sources are now included in the EGU file. (Previously, some co-generation sources were in the EGU file and some in the non-EGU.) In addition, stack exit parameters were corrected for Ohio point sources.

### **Future Year Emissions**

Four future year inventories were developed: 2008, 2009, 2012, and 2018. The emissions for 2009, 2012, and 2018 were derived by running the emissions model for each source sector for each year. For 2008, emissions were derived from interpolating between 2002 and 2009 for all sectors, except EGUs. For 2008 summer ozone modeling, the 2008 EGU emissions were processed based on the IPM modeling.

Scenario 1: This scenario represents the future year “base” inventory (i.e., growth to the future year of interest and application of existing [“on the books”] controls). The following controls were included in this scenario:

#### **On-Highway Mobile Sources**

- Tier II/Low sulfur fuel
- Inspection/Maintenance programs (nonattainment areas)
- Reformulated gasoline (nonattainment areas)

#### **Off-Highway Mobile Sources**

- Federal control programs incorporated into NONROAD model (e.g., nonroad diesel rule), plus the evaporative Large Spark Ignition and Recreational Vehicle standards
- Heavy-duty diesel (2007) engine standard/Low sulfur fuel
- Federal railroad/locomotive standards
- Federal commercial marine vessel engine standards

#### **Power Plants**

- Title IV (Phases I and II)
- NO<sub>x</sub> SIP Call
- Clean Air Interstate Rule
- Clean Air Mercury Rule

#### **Other Point Sources**

- VOC 2-, 4-, 7-, and 10-year MACT standards
- Combustion turbine MACT
- Industrial boiler/process heater/RICE MACT

Updates to the future year “base” emissions compared to Base J include:

- Updated growth factors for several area and point source categories (see “Development of Updated Growth and Control Factors for Lake Michigan Air Directors Consortium”, Draft Report, December 29, 2005, E.H. Pechan)
- Updated control factors for several area and point source categories (see “Development of Updated Growth and Control Factors for Lake Michigan Air Directors Consortium?”, Draft Report, December 29, 2005, E.H. Pechan; and “Documentation for MACTEC NonEGU “On-the-Books” Control Factor File”, January 10, 2006, MACTEC). The changes include settlement agreement for petroleum refineries, and other non-EGU sources in the LADCO region.

- CAIR scenarios
  - 1a: “VISATASII\_PC\_1f” reflects the IPM scenario which assumed full trading and banking. The results of this IPM run were delivered in July 2005, and were used in Round 3.
  - 1b: “VISTASII\_PC\_3b” reflects the IPM scenario which assumed the CAIR state-specific emission budgets as an environmental constraint, but allowed banking. The results of this restricted trading IPM run were delivered in December 2005.
  - 1c: This scenario is the same as 1a, with the addition of BART reductions for non-EGU sources. The determination of sources subject to BART is based on the latest Midwest RPO analyses.
  - 1d: This scenario is based on 1a, but scales-back the emissions in each state to match the CAIR state-specific emission budgets (i.e., removes any excess introduced by banking).
- Inclusion of a pollution control retrofits at a few facilities (note: this information was not available at the time the IPM full trading was conducted in summer 2005)
  - MI – Monroe: SO<sub>2</sub> emissions from Units 3-4 reduced by 97% (based on November 9 letter from Skiles Boyd, DTE-Energy)
  - MI – Campbell: NO<sub>x</sub> emissions from Units 2-3 reduced by 90% (based on information supplied by Louis Pocalujka, Consumers Energy)
  - IN – Gibson: SO<sub>2</sub> emissions from Units 1-3 reduced by 95% (based on information supplied by Dan Weiss, Cinergy)
  - IN – Cayuga: SO<sub>2</sub> emissions from Units 1-2 reduced by 95% (based on information supplied by Dan Weiss, Cinergy)
- Revised motor vehicle emissions: Unlike 2002, EMS was run for only a few days for 2009, 2012, and 2018. To provide emissions for all 36 days at 36 km, the 2002 emission files were scaled by the emission ratios for one day (i.e., September 13 for 2009, and August 16 for 2012). To provide emissions for all 12 days at 12 km, a similar approach was used, along with consideration of the spatially disaggregated 36 km derived emissions.

Scenario 2: This scenario reflects Scenario 1a plus the additional SO<sub>2</sub> and NO<sub>x</sub> candidate control measures in the “Interim White Paper, Source Category: Electric Generating Units” (January 14, 2005):

- 2a reflects EGU<sup>2</sup> for the top 30 EGUs in the 5-state region (based on Q/d)
- 2b reflects EGU<sub>2</sub> for all EGUs within 100 km of a residual nonattainment area
- 2c reflects EGU<sub>2</sub> throughout the 5-state LADCO region
- 2d reflects EGU<sub>2</sub> throughout the 5-state LADCO region plus seven neighboring states: MN, IA, MO, KY, TN, WV, and PA
- 2e reflects EGU<sub>1</sub> throughout the 5-state LADCO region
- 2f reflects EGU<sub>1</sub> throughout the 5-state LADCO region based on recent IPM modeling
- 2g reflects EGU<sub>2</sub> throughout the 5-state LADCO region based on recent IPM modeling

Further discussion of the modeling for these scenarios is provided in the Appendix.

<sup>2</sup>

EGU<sub>2</sub> and EGU<sub>1</sub> in Scenarios 2a – 2e were derived by applying control factors developed by MACTEC. The derivation of these control factors is explained in “Identification and Evaluation of Candidate Control Measures”, prepared by MACTEC, April 14, 2005.

Scenario 3: This scenario reflects Scenario 2 plus additional white paper controls for stationary and mobile sources

Scenario 3a reflects the minimum control level for the EGU, non-EGU point, and area source White Paper controls, plus chip reflashing for HDDVs and a “highly cost effective” voluntary/incentive control program for HDDVs and construction equipment (i.e., < \$5,000/T)

EGU EGU1 (Scenario 2e)

Non-EGU ICI1 and GLASS1

Area SOLV1A-7

On-Road Reflashing – Base diesel NOx emissions derived by multiplying MOBILE6 emissions in 2002, 2009, 2012 by 1.04 to account for “true” compliance rates of chip reflashing (i.e., 10% in 2002, and 30% in 2009-2012 timeframe), based on MOBILE6 modeling by Chris Bovee, WDNr. (Note, MOBILE6 assumes a compliance rate of 90%.)

Controlled diesel NOx emissions derived by multiplying MOBILE6 emissions by 1.01 in 2009 and 2012 to account for expected compliance rates of chip reflashing (i.e., 60-80%).

HDDV Voluntary Programs (Diesel Retrofits) – Assume a reduction of 50 TPD (out of 850 TPD for Class 8 HDDV) – i.e., apply ratio of 0.94 to 2009 Class 8 HDDV inventory (or 0.95 to the entire on-road diesel inventory)

Low RVP Fuel - Controlled emissions derived using adjustment factors developed by Environ (see Fuel Sensitivity Runs, March 7, 2005) for the following areas:

Indianapolis: Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby  
 Detroit: Livingston, Macomb, Monroe, Oakland, St.Clair, Washtenaw, and Wayne  
 Cleveland: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit  
 Cincinnati: Butler, Clermont, Hamilton, Warren, and Clinton  
 Dayton: Clark, Greene, Miami, and Montgomery

Nonroad Construction Equipment Voluntary Programs (Diesel Retrofits) – Assume a reduction of 45 TPD (out of 275 TPD) – i.e., apply ratio of 0.84 to diesel construction equipment

Scenario 3b reflects the maximum control level for the EGU, non-EGU point, and area source White Paper controls, plus chip reflashing for HDDVs and a “cost effective” voluntary/incentive control program for HDDVs, and construction and agricultural equipment (i.e., < \$10,000/T)

EGU EGU2 (Scenario 2c)

Non-EGU ICI3, KILN1, GLASS2, and 25% NOx reduction for asphalt plants

Area SOLV1B-4B 5A-7A

On-Road Refashing – Base diesel NOx emissions derived by multiplying MOBILE6 emissions in 2002, 2009, 2012 by 1.04 to account for “true” compliance rates of chip reflashing (i.e., 10% in 2002, and 30% in 2009-2012 timeframe), based on MOBILE6 modeling by Chris Bovee, WDNR. (Note, MOBILE6 assumes a compliance rate of 90%.)

Controlled diesel NOx emissions derived by multiplying MOBILE6 emissions by 1.01 in 2009 and 2012 to account for expected compliance rates of chip reflashing (i.e., 60-80%).

HDDV Voluntary Programs (Diesel Retrofits) – Assume a reduction of 100 TPD (out of 850 TPD for Class 8 HDDV) – i.e., apply ratio of 0.88 to 2009 Class 8 HDDV inventory (or 0.91 to the entire on-road diesel inventory)

Low RVP Fuel - Controlled emissions derived using adjustment factors developed by Environ (see Fuel Sensitivity Runs, March 7, 2005) for the following areas:

Indianapolis: Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby  
 Detroit: Livingston, Macomb, Monroe, Oakland, St.Clair, Washtenaw, and Wayne  
 Cleveland: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit  
 Cincinnati: Butler, Clermont, Hamilton, Warren, and Clinton  
 Dayton: Clark, Greene, Miami, and Montgomery

Nonroad Construction Equipment Voluntary Programs (Diesel Retrofits) – Assume a reduction of 45 TPD (out of 275 TPD) – i.e., apply ratio of 0.84 to diesel construction equipment

Agricultural Equipment Voluntary Programs – Assume a reduction of 55 TPD (out of 255 TPD) – i.e., apply ratio of 0.78 to diesel agricultural equipment

Scenario 4: This scenario reflects Scenario 1a plus the additional control measures under discussion by the MW and NE State Commissioners:

Non-EGU	ICI1
Area	AIM, consumer products, and portable fuel containers
On-Road	Reflashing (see discussion under Scenario 3)

In addition, the Commissioners have discussed a voluntary retrofit program (although it is unclear whether the objective is to reduce NO<sub>x</sub>, VOC, and/or PM) and a regional gasoline. For the purposes of this model run, the Scenario 3a on-road and nonroad controls were assumed to reflect these possible other controls.

Scenario 5: This scenario reflects Scenario 1a plus the additional control measures identified by the LADCO Project Team as a possible control option:

EGU	EGU1 for SO <sub>2</sub> , EGU2 for NO <sub>x</sub>
Non-EGU	ICI1
Area	AIM, consumer products, and portable fuel containers
On-Road	Reflashing (see discussion under Scenario 3) HDDV voluntary programs (diesel retrofits) Low RVP fuel
Nonroad	Construction equipment voluntary programs (diesel retrofits)

In addition, the Project Team identified organic carbon control measures, case-by-case point source controls, and state programs (e.g., RACT rules). For the purposes of this model run, no emission reductions were assumed for these other controls due to the lack of specific control information.

**Table 1. Round 4 Modeling Runs**

Run	Description	2002	2008	2009	2012	2018
Base K	2002 baseyear emissions inventory	36,12				
Scenario 1	Existing (OTB) controls, plus CAIR					
	a. CAIR w/ full trading		12	36,12	36,12	36
	b. CAIR w/ restricted trading				36,12	
	c. CAIR w/ full trading and BART for non-EGUs					36
	d. EGU0 - CAIR w/ full trading scaled-back to state budgets			36,12	36,12	
Scenario 2	Scenario 1a plus EGU controls:					
	a. EGU2 for top 30 EGUs in 5-state region (based on Q/d)				36,12	
	b. EGU2 in 100 km radius of each residual NA area				36,12	
	c. EGU2 in 5-state region			36,12	36,12	36
	d. EGU2 in 12-state Midwest region				36,12	36
	e. EGU1 in 5-state region			36,12	36,12	
	f. EGU1-IPM in 5-state region					
	g. EGU2-IPM in 5-state region					
Scenario 3	a. Scenario 2 e plus "low" control level for non-EGU point, area, and mobile sources throughout 5-state region			36,12	36,12	
	<b>Non-EGU Point Sources</b>					
	* ICI Boilers - 40% SO <sub>2</sub> , 60% NO <sub>x</sub> reduction (ICI1)					
	* Glass manufacturing - 30% NO <sub>x</sub> reduction (GLASS1)					
	<b>Area Sources</b>					
	* Consumer products - OTC model rule (SOLV2A)					
	* AIM coatings - OTC model rule (SOLV1A)					
	* Portable fuel containers - OTC model rule (SOLV3A)					
	* Auto refinishing - extend IL,IN,WI RACT rules (SOLV4A)					
	* Ind. surface coating - more stringent RACT (SOLV5A)					
	* Degreasing – more stringent RACT (SOLV6A)					
	* Gas. Dispensing - enhanced vapor recovery (SOLV7A)					
	<b>Mobile Sources</b>					
	* HDDV – reflashing and voluntary measures <\$5,000/T					
	* Construction Equipment - voluntary measures < \$5,000/T					
	* Low RVP fuel (IN, MI, OH counties)					
	b. Scenario 2 c plus "high" control level for non-EGU point, area, and mobile sources throughout 5-state region			36,12	36,12	
	<b>Non-EGU Point Sources</b>					
	* ICI Boilers - 90% SO <sub>2</sub> , 80% NO <sub>x</sub> reduction (ICI3)					
	* Cement kilns – 90% SO <sub>2</sub> , 50% NO <sub>x</sub> reduction (KILN1)					
	* Asphalt plants – 25% NO <sub>x</sub> reduction					
	* Glass manufacturing - 75% NO <sub>x</sub> reduction (GLASS2)					
	<b>Area Sources</b>					
	* Consumer products - SCAQMD rule (SOLV2B)					
	* AIM coatings - CARB 2003 rule (SOLV1BA)					

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		* Portable fuel cont, - Accelerated phase in (SOLV3B)						
		* Auto refinishing - SCAQMD rule (SOLV4B)						
		* Ind. surface coating - more stringent RACT (SOLV5A)						
		* Degreasing - more stringent RACT (SOLV6A)						
		* Gas. dispensing - enhanced vapor recovery (SOLV7A)						
		* Asphalt paving applications - low VOC formulations						
		<b>Mobile Sources</b>						
		* HDDV - reflashing and voluntary measures <\$10,000/T						
		* Const. Equipment - voluntary measures < \$10,000/T						
		* Agricultural Equipment - voluntary measures < \$10,000/T						
		* Low RVP fuel (IN, MI, OH counties)						

Note: 12 = 12 km summer run, 36 = 36 km annual run



Round 4	VOC	2009								2012														2015	2018				
July	2002	1a	1b	1d	2c	2e	3a	3b		1a	1b	1d	2a	2b	2c	2d	2e	2f	2g	3a	3b	4	5		1a	1a	1c	2c	2d
Nonroad																													
IL	224	164	164		164	164	164	164		149	149		149	149	149	149	149	149	149	149	149	149	149			130	130	130	130
IN	125	94	94		94	94	94	94		95	95		95	95	95	95	95	95	95	95	95	95	95			95	95	95	95
MI	348	307	307		307	307	307	307		276	276		276	276	276	276	276	276	276	276	276	276	276			222	222	222	222
OH	222	161	161		161	161	161	161		145	145		145	145	145	145	145	145	145	145	145	145	145			126	126	126	126
WI	214	194	194		194	194	194	194		175	175		175	175	175	175	175	175	175	175	175	175	175			140	140	140	140
5-State Total	1133	920	920		920	920	920	920		840	840		840	840	840	840	840	840	840	840	840	840	840	776.5		713	713	713	713
TOTAL	10294	7270	7270		7270	7270	7270	7270		8895	8895		8895	8895	8895	8895	8895	8895	8895	8895	8895	8895	8895			7072	7072	7072	7072
MAR																													
IL	10	10	10		10	10	10	10		10	10		10	10	10	10	10	10	10	10	10	10	10			10	10	10	10
IN	5	5	5		5	5	5	5		5	5		5	5	5	5	5	5	5	5	5	5	5			5	5	5	5
MI	7	7	7		7	7	7	7		7	7		7	7	7	7	7	7	7	7	7	7	7			8	8	8	8
OH	8	8	8		8	8	8	8		8	8		8	8	8	8	8	8	8	8	8	8	8			8	8	8	8
WI	4	4	4		4	4	4	4		4	4		4	4	4	4	4	4	4	4	4	4	4			4	4	4	4
5-State Total	34	34	34		34	34	34	34		34	34		34	34	34	34	34	34	34	34	34	34	34	33.5		35	35	35	35
TOTAL	307	321	321		321	321	321	321		329	329		329	329	329	329	329	329	329	329	329	329	329			346	346	346	346
OtherArea																													
IL	679	688	688		688	688	599	565		700	700		700	700	700	700	700	700	700	613	576	647	647			738	738	738	738
IN	354	365	365		365	365	268	251		373	373		373	373	373	373	373	373	373	278	259	353	353			398	398	398	398
MI	518	516	516		516	516	364	337		520	520		520	520	520	520	520	520	520	371	342	476	476			541	541	541	541
OH	546	550	550		550	550	361	331		558	558		558	558	558	558	558	558	558	362	332	493	493			593	593	593	593
WI	458	467	467		467	467	364	353		474	474		474	474	474	474	474	474	474	368	355	455	455			506	506	506	506
5-State Total	2555	2586	2586		2586	2586	1956	1837		2625	2625		2625	2625	2625	2625	2625	2625	2625	1992	1864	2424	2424	2700.5		2776	2776	2776	2776
TOTAL	19299	19885	19885		19885	19885	19252	19135		20359	20359		20359	20359	20359	20359	20359	20359	20359	19727	19598	20158	20158			21759	21759	21759	21759
On-Road																													
IL	446	314	314		314	314	314	314		260	260		260	260	260	260	260	260	260	260	260	260	260			197	197	197	197
IN	405	237	237		237	237	225	225		193	193		193	193	193	193	193	193	193	183	183	183	183			150	150	150	150
MI	522	335	335		335	335	328	328		303	303		303	303	303	303	303	303	303	296	296	296	296			217	217	217	217
OH	574	365	365		365	365	336	336		340	340		340	340	340	340	340	340	340	311	311	311	311			238	238	238	238
WI	238	144	144		144	144	144	144		117	117		117	117	117	117	117	117	117	117	117	117	117			88	88	88	88
5-State Total	2185	1395	1395		1395	1395	1348	1348		1213	1213		1213	1213	1213	1213	1213	1213	1213	1168	1168	1168	1168	1051.5		890	890	890	890
TOTAL	14263									7825	7825		7825	7825	7825	7825	7825	7825	7825										
EGU																													
IL	9	8								8																9	9	9	9
IN	6	6								7																6	6	6	6
MI	12	11								11																12	12	12	12
OH	5	6								7																7	7	7	7
WI	3	3								4																4	4	4	4
5-State Total	35	34								37														37.5		38	38	38	38
TOTAL	214	195								197																215	215	215	215
Non-EGU																													
IL	313	286	286		286	286	286	286		305	305		305	305	305	305	305	305	305	305	305	305	305			350	350	350	350
IN	150	160	160		160	160	160	160		170	170		170	170	170	170	170	170	170	170	170	170	170			199	199	199	199
MI	123	115	115		115	115	115	115		122	122		122	122	122	122	122	122	122	122	122	122	122			139	139	139	139
OH	77	75	75		75	75	75	75		79	79		79	79	79	79	79	79	79	79	79	79	79			90	90	90	90
WI	88	97	97		97	97	97	97		104	104		104	104	104	104	104	104	104	104	104	104	104			120	120	120	120
5-State Total	751	733	733		733	733	733	733		780	780		780	780	780	780	780	780	780	780	780	780	780	839		898	898	898	898
TOTAL	4087	4409	4409		4409	4409	4409	4409		4700	4700		4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700			5378	5378	5378	5378

Round 4	NOx	2009							2012															2015	2018			
July	2002	1a	1b	1d	2c	2e	3a	3b	1a	1b	1d	2a	2b	2c	2d	2e	2f	2g	3a	3b	4	5		1a	1a	1c	2c	2d
Nonroad																												
IL	324	263	263		263	263	245	222	224	224		224	224	224	224	224	224	224	208	189	208	208			154	154	154	154
IN	178	142	142		142	142	133	121	141	141		141	141	141	141	141	141	141	132	120	132	132			141	141	141	141
MI	205	159	159		159	159	153	140	133	133		133	133	133	133	133	133	133	128	116	128	128			93	93	93	93
OH	253	195	195		195	195	186	169	162	162		162	162	162	162	162	162	162	155	140	155	155			109	109	109	109
WI	145	114	114		114	114	197	98	97	97		97	97	97	97	97	97	97	91	83	91	91			69	69	69	69
5-State Total	1105	873	873		873	873	914	750	757	757		757	757	757	757	757	757	757	714	648	714	714	661.5		566	566	566	566
TOTAL	8897	8930	8930		8930	8930	8685	8610	8895	8895		8895	8895	8895	8895	8895	8895	8895	8661	8596	8661	8661			8704	8704	8704	8704
MAR																												
IL	277	201	201		201	201	201	201	195	195		195	195	195	195	195	195	195	195	195	195	195			186	186	186	186
IN	123	89	89		89	89	89	89	87	87		87	87	87	87	87	87	87	87	87	87	87			84	84	84	84
MI	114	112	112		112	112	112	112	111	111		111	111	111	111	111	111	111	111	111	111	111			110	110	110	110
OH	177	128	128		128	128	128	128	126	126		126	126	126	126	126	126	126	126	126	126	126			122	122	122	122
WI	79	59	59		59	59	59	59	59	59		59	59	59	59	59	59	59	59	59	59	59			57	57	57	57
5-State Total	770	589	589		589	589	589	589	578	578		578	578	578	578	578	578	578	578	578	578	578	568.5		559	559	559	559
TOTAL	4968	4002	4002		4002	4002	4002	4002	3964	3964		3964	3964	3964	3964	3964	3964	3964	3964	3964	3964	3964			3919	3919	3919	3919
OtherArea																												
IL	62	68	68		68	68	68	68	70	70		70	70	70	70	70	70	70	70	70	70	70			73	73	73	73
IN	62	65	65		65	65	65	65	67	67		67	67	67	67	67	67	67	67	67	67	67			69	69	69	69
MI	49	52	52		52	52	52	52	53	53		53	53	53	53	53	53	53	53	53	53	53			54	54	54	54
OH	50	59	59		59	59	59	59	60	60		60	60	60	60	60	60	60	60	60	60	60			62	62	62	62
WI	32	34	34		34	34	34	34	34	34		34	34	34	34	34	34	34	34	34	34	34			35	35	35	35
5-State Total	255	278	278		278	278	278	278	284	284		284	284	284	284	284	284	284	284	284	284	284	288.5		293	293	293	293
TOTAL	4240	4248	4248		4248	4248	4248	4248	4372	4372		4372	4372	4372	4372	4372	4372	4372	4372	4372	4372	4372			4566	4566	4566	4566
On-Road																												
IL	890	578	578		578	578	567	558	474	474		474	474	474	474	474	474	474	456	448	456	456			300	300	300	300
IN	703	425	425		425	425	416	408	313	313		313	313	313	313	313	313	313	299	292	299	299			187	187	187	187
MI	926	680	680		680	680	666	654	619	619		619	619	619	619	619	619	619	597	586	597	597			385	385	385	385
OH	1035	609	609		609	609	595	584	512	512		512	512	512	512	512	512	512	490	481	490	490			270	270	270	270
WI	481	303	303		303	303	297	292	226	226		226	226	226	226	226	226	226	218	214	218	218			118	118	118	118
5-State Total	4035	2595	2595		2595	2595	2542	2496	2144	2144		2144	2144	2144	2144	2144	2144	2144	2059	2022	2059	2059	1702		1260	1260	1260	1260
TOTAL	23499								13170	13170		13170	13170	13170	13170	13170	13170	13170										
EGU																												
IL	712	227	230	223	205	224	224	205	244	235	241	184	180	155	157	206	201	192	206	155	244	155			231	231	165	165
IN	830	406	325	375	294	388	388	294	424	325	414	263	350	158	161	242	325	172	242	158	424	158			283	283	154	154
MI	448	218	189	207	198	251	251	198	219	184	203	148	142	107	109	167	220	146	167	107	219	107			247	247	127	127
OH	1139	330	347	302	252	317	317	252	322	337	322	199	194	165	167	216	216	205	216	165	322	165			271	271	179	179
WI	293	146	148	128	122	144	144	122	139	137	131	111	101	65	66	98	125	117	98	65	139	65			147	147	76	76
5-State Total	3422	1327	1239	1235	1071	1324	1324	1071	1348	1218	1311	905	967	650	660	929	1087	832	929	650	1348	650	1263.5		1179	1179	701	701
TOTAL	14371	7746	7537	7654	7488	7742	7742	7488	7721	7484	7683	7278	7339	7023	6248	7302			7302	7023	7721	7023			7007	7007	6530	5961
Non-EGU																												
IL	356	334	334		334	334	314	298	338	338		338	338	338	338	338	338	338	318	302	320	320			343	340	343	343
IN	238	212	212		212	212	174	148	216	216		216	216	216	216	216	216	216	177	151	179	179			225	189	225	225
MI	216	208	208		208	208	194	175	214	214		214	214	214														

Round 4	SOX	2009							2012														2015	2018				
July	2002	1a	1b	1d	2c	2e	3a	3b	1a	1b	1d	2a	2b	2c	2d	2e	2f	2g	3a	3b	4	5	1a	1a	1c	2c	2d	
Nonroad																												
IL	31	5	5		5	5	5	5	0.6	0.6		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		0.4	0.4	0.4	0.4	
IN	17	3	3		3	3	3	3	3	3		3	3	3	3	3	3	3	3	3	3	3		0.3	0.3	0.3	0.3	
MI	19	3	3		3	3	3	3	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.3	0.3	0.3	0.3	
OH	23	4	4		4	4	4	4	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.3	0.3	0.3	0.3	
WI	13	2	2		2	2	2	2	0.3	0.3		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		0.2	0.2	0.2	0.2	
5-State Total	103	17	17		17	17	17	17	4.9	4.9		4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	3.2	1.5	1.5	1.5	1.5	
TOTAL	1190	263	263		263	263	263	263	251	251		251	251	251	251	251	251	251	251	251	251	251		250	250	250	250	
MAR																												
IL	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	
IN	0.2	0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	0.2	0.2	
MI	0.6	0.7	0.7		0.7	0.7	0.7	0.7	0.7	0.7		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7		0.8	0.8	0.8	0.8	
OH	0.4	0.3	0.3		0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3	0.3	0.3	
WI	12.7	9.5	9.5		9.5	9.5	9.5	9.5	9.5	9.5		9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5		8.7	8.7	8.7	8.7	
5-State Total	13.9	10.7	10.7		10.7	10.7	10.7	10.7	10.7	10.7		10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	11.05	10	10	10	10	
TOTAL	620	509	509		509	509	509	509	509	509		509	509	509	509	509	509	509	509	509	509	509		503	503	503	503	
OtherArea																												
IL	11	12	12		12	12	12	12	12	12		12	12	12	12	12	12	12	12	12	12	12		13	13	13	13	
IN	158	150	150		150	150	150	150	151	151		151	151	151	151	151	151	151	151	151	151	151		153	153	153	153	
MI	71	68	68		68	68	68	68	68	68		68	68	68	68	68	68	68	68	68	68	68		68	68	68	68	
OH	22	34	34		34	34	34	34	35	35		35	35	35	35	35	35	35	35	35	35	35		35	35	35	35	
WI	9	9	9		9	9	9	9	10	10		10	10	10	10	10	10	10	10	10	10	10		10	10	10	10	
5-State Total	271	273	273		273	273	273	273	276	276		276	276	276	276	276	276	276	276	276	276	276	277.5	279	279	279	279	
TOTAL	2289	2279	2279		2279	2279	2279	2279	2340	2340		2340	2340	2340	2340	2340	2340	2340	2340	2340	2340	2340		2406	2406	2406	2406	
On-Road																												
IL																												
IN																												
MI																												
OH																												
WI																												
5-State Total																							0					
TOTAL																												
EGU																												
IL	1310	944	885	692	529	748	748	529	789	743	646	548	530	320	334	395	553	387	395	320	789	395		810	810	332	343	
IN	2499	1267	1075	824	548	846	846	548	1263	1086	847	628	818	190	209	325	587	427	325	190	1263	325		1048	1048	172	184	
MI	1103	1022	1020	479	356	600	600	356	1031	1048	476	469	449	140	152	220	293	145	220	140	1031	220		1058	1058	154	161	
OH	3131	1463	1207	1280	535	719	719	535	994	1087	977	444	426	209	231	335	437	362	335	209	994	335		701	701	240	258	
WI	602	512	516	274	193	318	318	193	492	483	279	372	318	75	82	120	295	174	120	75	492	120		500	500	88	93	
5-State Total	8645	5208	4703	3549	2161	3231	3231	2161	4569	4447	3225	2461	2541	934	1008	1395	2165	1495	1395	934	4569	1395	4343	4117	4117	986	1039	
TOTAL	31839	20163	17066	18505	17115	18186	18186	17115	17629	17629	16285	15520	15606	13995	10566	14455			14455	13995	17629	14455		14727	14727	11596	9040	
Non-EGU																												
IL	373	251	251		251	251	215	152	257	257		257	257	257	257	257	257	257	220	157	221	221		249	248	249	249	
IN	292	270	270		270	270	221	133	274	274		274	274	274	274	274	274	274	224	136	225	225		290	228	290	290	
MI	162	166	166		166	166	149	52	171	171		171	171	171	171	171	171	171	154	53	154	154		185	116	185	185	
OH	240	231	231		231	231	196	152	210	210		210	210	210	210	210	210	210	175	130	175	175		216	198	216	216	
WI	163	154	154		154	154	100	31	155	155		155	155	155	155	155	155	155	100	31	100	100		156	100	156	156	
5-State Total	1230	1072	1072		1072	1072	881	520	1067	1067		1067	1067	1067	1067	1067	1067	1067	873	507	875	875	1081.5	1096	890	1096	1096	
TOTAL	5759	6093	6093		6093	6093	5900	5540	6340	6340		6340	6340	6340	6340	6340	6340	6340	6148	5780	6148	6148		6970	6746	6970	6970	
IL	1725	1212	1153		797	1016	980	698	1059	1013		818	800	590	604	665	823	657	628	490	1023	629		1072	1071	594	605	
IN	2966.2	1690	1498		971	1269	1220	834	1691	1514		1056	1246	618	637	753	1015	855	703	480	1642	704		1492	1430	616	628	
MI	1355.6	1260	1258		594	838	821	480	1271	1288		709	689	380	392	460	533	385	443	262	1254	443		1312	1243	408	415	
OH	3416.4	1732	1476		804	988	953	725	1240	1333		690	672	455	477	581	683	608	546	375	1205	546		953	935	492	510	
WI	799.7	687	691		368	493	439	245	667	658		547	493	250	257	295	470	349	240	126	612	240		675	619	263	268	
5-State Total	10262.9	6581	6076		3534	4604	4413	2982	5928	5806		3820	3900	2293	2367	2754	3524	2854	2560	1733	5736	2562	5716	5504	5298	2373	2426	

## APPENDIX

### Scenario 2 EGU Strategies

The Round 4 control strategy modeling includes five scenarios reflecting the EGU1 and EGU2 controls in the White Paper ("Interim White Paper – Midwest RPO Candidate Control Measures, Electric Generating Units", January 14, 2005). A summary of the scenarios is provided below.

#### Overview of EGU1, EGU2

EGU1 and EGU2 represent regional emission caps (tons per year for SO<sub>2</sub> and NO<sub>x</sub>, and tons per season for NO<sub>x</sub>) based on the following emission limits:

SO <sub>2</sub> (lb/MMBTU):	EGU1 0.36 (2009), 0.15 (2012)
	EGU2 0.24 (2009), 0.10 (2012)
NO <sub>x</sub> (lb/MMBTU):	EGU1 0.15 (2009), 0.10 (2012)
	EGU2 0.12 (2009), 0.07 (2012)

For this round of modeling, the compliance date is assumed to be 2012, not 2013 as identified in the original White Paper. EGU1 and EGU2 are defined based on the 2012 regional emissions cap. The 2009 "interim limits" represent where we expect to be on the path to meeting the 2012 emissions cap. The proposed emission cap applies to the entire region (and not individual states) and incorporates demand growth (calculated by IPM) for the target year.

MACTEC derived unit-specific control factors for EGU1 and EGU2 in the following manner:

- For each control measure and year, calculate the 5-state region annual SO<sub>2</sub> emission caps and winter/summer NO<sub>x</sub> emission caps based on the IPM-projected heat inputs (mmBtu) and the average emission rate (lbs/mmBtu) for the control measure/year;
- Identify all units with emission rates below the average emission rate for the control measure/year; set the future year percent control efficiency to 0 for these units since they are already below the average emission rate on which the caps are based;
- Subtract the emissions from units with emission rates below the average emission rate and calculate an "adjusted" emission rate (lbs/mmBtu) that units above the average emission rate must meet;
- Calculate the control factor (for units above the "adjusted" emission rate) as one minus the ratio of the "adjusted" average emission rate to the actual emission rate for that unit.

#### Description of Scenarios

##### **a. EGU2 for top 30 EGUs in 5-state region (based on Q/d)**

EGUs in the 5-state region were ranked based on their Q/d value. These values were calculated using:

- 2012 SO<sub>2</sub> and NO<sub>x</sub> emission estimates; and
- distances to residual nonattainment monitors (based on Round 3 modeling – i.e., ozone: Chicago, Milwaukee, and Cleveland; PM<sub>2.5</sub>: Chicago, St.Louis/Granite City, Detroit, Cleveland, and Cincinnati) and nearby Class I areas.

The table below shows the Q/d values, emissions, and rankings for the top 40 facilities. The list is sorted based on the combined rankings of Q/d-NO<sub>x</sub> and Q/d-SO<sub>2</sub>.

May 16, 2006

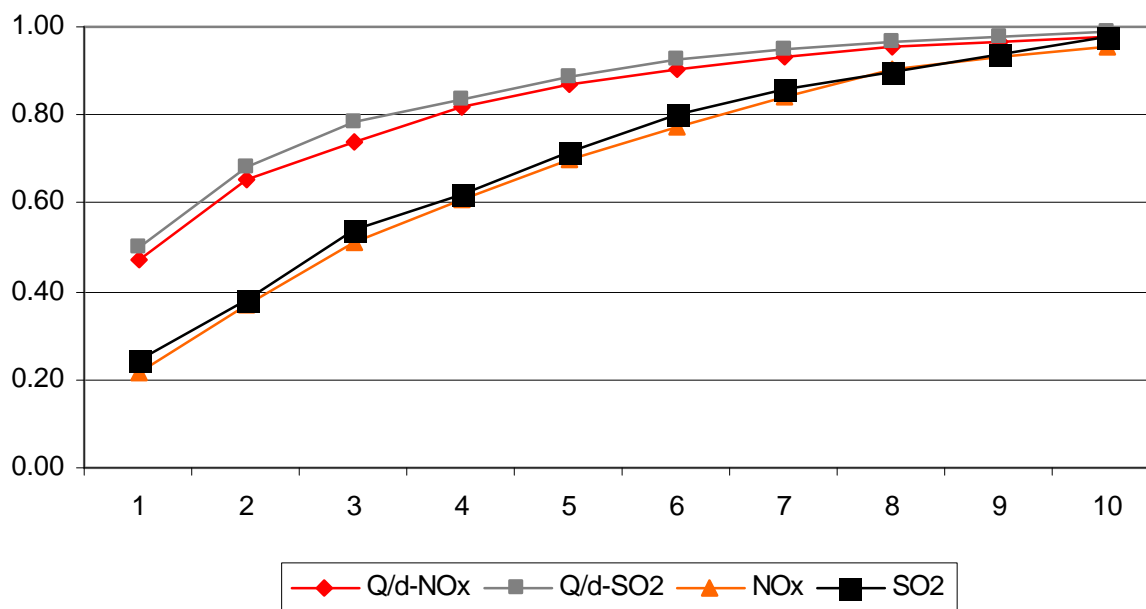
Q/D for Midwest RPO

14:14 Wednesday, February 22, 2006

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O b s	y t s	r s d	c n t y t i m e	s t a m i m e	c n y c n i m e	f c i d	n a m e	g r i d x	g r i d y	m i n d s t	m i n i m o n	q d n o x	q d n o x	q d s 2	q d s 2	s o n o	s o n q	n n s o	n n s q	s s r d
1	US	26	Mich	163	Wayne	B2810	DETROIT EDISON RIV	1134.99	338.815	6	26163	3.39044	19.5	10.2767	59.2	108	1	92	1	1
2	US	39	Ohio	25	Clermont	1413100008	CINERGY CG&E WC BE	1089.89	-35.356	29	39061	1.30407	37.2	4.9612	141.6	44	3	19	2	2
3	US	39	Ohio	85	Lake	0243160009	CLEVELAND ELECTRIC	1279.13	291.746	23	39055	1.36151	30.8	3.3584	75.9	59	2	60	8	3
4	US	55	Wisc	117	Sheboygan	460033090	WP & L Alliant Ene	726.01	448.454	18	55117	1.07065	19.5	3.6255	66.0	109	4	80	6	4
5	US	26	Mich	163	Wayne	B2811	DETROIT EDISON TRE	1131.97	321.469	20	26163	0.74758	15.1	3.9601	80.1	149	7	52	4	5
6	US	26	Mich	147	St_Clair	B2796	ST. CLAIR / BELLE	1175.59	406.808	80	26163	0.73779	58.7	3.0537	243.1	18	8	2	9	6
7	US	18	Indi	29	Dearborn	00002	AMERICAN ELECTRIC	1040.07	-31.946	34	39061	0.71100	24.1	1.7065	57.8	81	9	97	16	7
8	US	26	Mich	115	Monroe	B2816	DETROIT EDISON/MON	1122.40	293.916	48	26163	0.43704	21.1	3.8031	183.6	99	22	7	5	8
9	US	39	Ohio	113	Montgomery	0857780013	DP&L, O.H. HUTCHIN	1080.83	32.197	49	39061	0.53632	26.2	1.9923	97.3	76	14	35	13	9
10	US	17	Illi	197	Will	197809AAO	MIDWEST GENERATION	754.82	201.224	55	17031	0.51395	28.3	2.0365	112.2	66	16	25	12	10
11	US	17	Illi	197	Will	197810AAK	MIDWEST GENERATION	739.33	216.943	44	17031	0.76842	34.0	1.5210	67.4	54	6	77	22	11
12	US	39	Ohio	61	Hamilton	1431350093	CINERGY CORP MIAMI	1044.54	-28.042	28	39061	0.57482	16.1	1.6199	45.5	130	11	136	19	12
13	US	17	Illi	31	Cook	031600AIN	MIDWEST GENERATION	740.23	258.241	20	17031	0.50121	10.1	1.9447	39.0	225	19	164	14	13
14	US	18	Indi	147	Spencer	00020	INDIANA MICHIGAN P	868.79	-182.363	116	MACA1	0.50965	59.1	1.6709	193.9	16	17	6	17	14
15	US	17	Illi	119	Madison	119020AAE	DYNEGY MIDWEST GEN	591.69	-103.839	17	17119	0.50712	8.7	1.5276	26.1	247	18	223	21	15
16	US	39	Ohio	35	Cuyahoga	1318000245	CLEVELAND ELECTRIC	1251.32	271.203	13	39035	0.37684	4.8	1.2550	16.1	352	24	290	26	16
17	US	17	Illi	31	Cook	031600AMI	MIDWEST GENERATION	770.73	243.506	16	17031	0.36113	5.9	1.1973	19.6	317	26	262	27	17
18	US	18	Indi	73	Jasper	00008	NIPSCO - R.M. SCHA	829.67	180.703	103	17031	0.39803	40.8	0.9307	95.4	37	23	38	32	18
19	US	18	Indi	89	Lake	00117	NIPSCO - DEAN H. M	792.89	223.831	46	17031	0.30339	13.9	1.1665	53.6	161	30	106	28	19
20	US	17	Illi	97	Lake	097190AAC	MIDWEST GENERATION	737.64	294.196	44	17031	0.24810	11.0	1.0000	44.3	205	34	141	29	20
21	US	39	Ohio	85	Lake	0243110008	PAINESVILLE MUNICI	1291.00	293.274	15	39055	0.14955	2.2	1.6578	24.8	474	53	228	18	21
22	US	26	Mich	115	Monroe	B2846	J.R. WHITING CO	1115.57	281.924	61	26163	0.18892	11.6	0.6854	42.1	196	41	148	39	22
23	US	39	Ohio	81	Jefferson	0641160017	W. H. SAMMIS PLANT	1370.12	182.626	121	39055	0.20359	24.7	0.5863	71.0	80	38	70	46	23
24	US	39	Ohio	1	Adams	0701000007	DP&L, J.M. STUART	1146.62	-66.909	93	39061	0.17124	15.9	0.6739	62.5	138	48	89	41	24
25	US	39	Ohio	93	Lorain	0247030013	AVON LAKE POWER PL	1233.49	243.827	40	39035	0.16397	6.6	0.6830	27.6	303	50	212	40	25
26	US	18	Indi	77	Jefferson	00001	IKEC - CLIFTY CREE	996.96	-75.840	95	39061	0.12745	12.0	1.4725	139.2	185	68	20	23	26
27	US	39	Ohio	95	Lucas	0448020006	TOLEDO EDISON CO.,	1113.16	257.144	86	26163	0.19430	16.7	0.5539	47.7	127	39	127	52	27
28	US	18	Indi	125	Pike	00002	IPL PETERSBURG GEN	842.68	-117.982	181	MACA1	0.31925	57.8	0.3770	68.3	20	28	73	71	28
29	US	18	Indi	43	Floyd	00004	PSI ENERGY - GALLA	968.21	-132.214	129	MACA1	0.17509	22.5	0.5434	69.9	91	47	71	53	29
30	US	55	Wisc	79	Milwaukee	241007800	WIS ELECTRIC POWER	735.39	372.568	72	55117	0.16369	11.8	0.5543	39.9	190	51	158	51	30
31	US	18	Indi	97	Marion	00033	IPL HARDING STREET	918.09	22.833	156	39061	0.14779	23.1	0.4341	67.8	88	56	75	62	31
32	US	55	Wisc	21	Columbia	111003090	Alliant Energy-Col	604.68	417.449	141	55117	0.11278	16.0	0.6267	88.7	137	77	45	43	32
33	US	39	Ohio	25	Clermont	1413090154	CINCINNATI GAS & E	1097.26	-48.043	43	39061	0.19308	8.3	0.3218	13.8	260	40	312	81	33
34	US	17	Illi	137	Morgan	137805AAA	AMEREN ENERGY GENE	573.75	-11.925	110	17119	0.13136	14.5	0.4641	51.2	156	67	113	58	34
35	US	26	Mich	139	Ottawa	B2835	J. H. CAMPBELL PLA	875.41	374.703	149	55117	0.09172	13.7	0.9888	147.2	165	95	18	31	35
36	US	26	Mich	163	Wayne	B2132	WYANDOTTE DEPT MUN	1133.22	331.351	11	26163	0.14801	1.6	0.3474	3.7	528	55	442	75	36
37	US	39	Ohio	7	Ashtabula	0204010000	CLEVELAND ELECTRIC	1339.05	329.017	63	39055	0.14809	9.4	0.3396	21.5	233	54	248	78	37
38	US	39	Ohio	31	Coshocton	0616000000	CONESVILLE POWER P	1273.11	126.550	144	39035	0.10727	15.4	0.5565	80.1	144	83	53	50	38
39	US	17	Illi	127	Massac	127855AAC	ELECTRIC ENERGY IN	730.42	-276.692	130	MING1	0.11597	15.1	0.4524	58.7	151	76	93	59	39
40	US	26	Mich	103	Marquette	B4261	WISCONSIN ELECTRIC	736.05	769.936	113	ISLE1	0.14091	16.0	0.3417	38.8	136	60	165	76	40

The figure below shows the fraction of the total regional Q/d value for each group of 10 facilities (i.e., the top 10 facilities are represented by the first set of symbols, which are designated by the number "1"). This shows that the top 30 facilities represent 75-80% of the regional Q/d value and about 50% of the regional NO<sub>x</sub> and SO<sub>2</sub> emissions. To model this scenario, the MACTEC EGU2 control factors for only these top 30 facilities will be applied.



**b. EGU2 in 100 km radius of each residual ozone and PM<sub>2.5</sub> nonattainment area**

There are 162 EGUs within 105 km of at least one of the residual nonattainment monitors/areas noted above. (Note: 105 km was used to flag facilities instead of 100 km because there were five large facilities slightly beyond 100 km.) These 162 EGUs represent 80% of the regional Q/d value and about 47% of the regional NO<sub>x</sub> and SO<sub>2</sub> emissions. To model this scenario, the MACTEC EGU2 control factors for only these 162 facilities will be applied.

**c. EGU2 in 5-state region**

To model this scenario, the MACTEC EGU2 control factors for all 392 EGUs in the 5-state region will be applied.

**d. EGU2 in 12-state region (5-state region plus MN, IA, MO, KY, TN, WV, PA)**

To model this scenario, the MACTEC EGU2 control factors for all EGUs in the 5-state region plus EGUs in several neighboring factors (MN, IA, MO, KY, TN, WV, and PA)<sup>3</sup> will be applied.

**e. EGU1 in 5-state region**

To model this scenario, the MACTEC EGU1 control factors for all EGUs in the 5-state region will be applied.

<sup>3</sup>

The control factors for these other states were derived by MACTEC following the same procedures as those outlined above for the five LADCO states.

**f. EGU1 in 5-state region based on IPM modeling**

IPM modeling for EGU1 was conducted by ICF to provide the modeling emissions inventory.

**g. EGU2 in 5-state region based on IPM modeling**

IPM modeling for EGU2 was also conducted by ICF to provide the modeling emissions inventory.

Two assumptions in the IPM modeling should be noted:

- ICF assumed banking and withdrawal of allowances, which results in higher SO<sub>2</sub> and NO<sub>x</sub> emissions in later years, such as 2012, compared to the EGU1 and EGU2 emission caps. If desired, then ICF can disable banking so that the emissions in the LADCO states are at the level of the SO<sub>2</sub> and NO<sub>x</sub> caps.
- ICF assumed EGU1 and EGU2 policies independent of the CAIR policies. If one wants to see a net reduction in both the LADCO and the CAIR regions, then it is necessary to retire the Title IV SO<sub>2</sub> and the CAIR NO<sub>x</sub> allowance budgets to the extent that the EGU1 and EGU2 caps are lower than the CAIR state level budgets. This, too, can be implemented in IPM.

To undo these assumptions (i.e., disable banking and force the EGU1/EGU2 emission caps) will require another IPM run. (No decision has been made whether to pursue further IPM modeling.)