



Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

April 8, 2004

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Alcoa Power Generating, Inc. / SSM 173-18485-00002

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 9/16/03



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**PART 70 SIGNIFICANT SOURCE MODIFICATION  
and POLLUTION CONTROL PROJECT  
OFFICE OF AIR QUALITY**

**Alcoa Power Generating Inc. - Warrick Power Plant  
4700 Darlington Road  
Newburgh, Indiana 47630**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification and Pollution Control Project No.: 173-18485-00002	
Issued by: Original signed by Paul Dubenetzky  Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 8, 2004



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## SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary electricity generating source.

Responsible Official:	Power Plant Manager
Source Address:	4700 Darlington Road, Newburgh, Indiana 46730
Mailing Address:	P.O. Box 10, Newburgh, Indiana 47629-0010
General Source Phone Number:	(812) 853-6111
SIC Code:	4911
County Location:	Warrick
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories NO <sub>x</sub> Budget Trading Program

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]

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[326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate a selective catalytic reduction (SCR) unit for Boiler No. 4.

Boiler No. 4 is a dry bottom, pulverized coal-fired boiler, with a nominal heat input capacity of 2,958 million BTU per hour (MMBTU/hour), and exhausting to a stack identified as Stack 243. Boiler No. 4 has a natural gas burner for start-up, which may be fired in conjunction with the coal-fired capability.

In addition to the selective catalytic reduction (SCR), Boiler No. 4 utilizes the following control technologies:

- An electrostatic precipitator (ESP), and
- A low NO<sub>x</sub> burner.

Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) emissions are measured with a SO<sub>2</sub> continuous emission monitor system (CEMS) and a NO<sub>x</sub> CEMS, respectively.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]

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[326 IAC 2-7-5(15)]

This construction and operation of the selective catalytic reduction (SCR) for Boiler No. 4 does not include any insignificant activities as defined in 326 IAC 2-7-1(21).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability); and
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3).



## SECTION C GENERAL OPERATION CONDITIONS

### C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

### C.2 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) [326 IAC 2-7-6(6)] [326 IAC 1-6-3]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation.

The submittal of the PMP and the PMP extension does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**C.4 Operation of Equipment [326 IAC 2-7-6(6)]**

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Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**Compliance Requirements [326 IAC 2-1.1-11]**

**C.5 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

**C.6 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

**C.7 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

C.8 Emergency Provisions [326 IAC 2-7-16]

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(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

Southwest Regional Office Telephone Number: 888-672-8323

Southwest Regional Office Facsimile. Number: 812-436-2572

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **C.9 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

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- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

##### **C.10 General Reporting Requirements [326 IAC 2-7-5(3)(C)]**

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- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

## SECTION D FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate a selective catalytic reduction (SCR) unit for Boiler No. 4.

Boiler No. 4 is a dry bottom, pulverized coal-fired boiler, with a nominal heat input capacity of 2,958 million BTU per hour (MMBTU/hour), and exhausting to a stack identified as Stack 243. Boiler No. 4 has a natural gas burner for start-up which may be fired in conjunction with the coal-fired capability.

In addition to the selective catalytic reduction (SCR), Boiler No. 4 utilizes the following control technologies:

- An electrostatic precipitator (ESP), and
- A low NO<sub>x</sub> burner.

Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) emissions are measured with a SO<sub>2</sub> continuous emission monitor system (CEMS) and a NO<sub>x</sub> CEMS, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1 Pollution Control Project (PCP) [326 IAC 2-2.5] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-2.5, the installation and operation of the selective catalytic reduction (SCR) for Boiler No. 4 is considered a pollution control project because of the expected significant decrease in NO<sub>x</sub> emissions.
- (b) The expected significant emissions increase of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) from this pollution control project is exempted from the 326 IAC 2-2 PSD requirements.
- (c) This pollution control project does not revised the existing applicable limitations and requirements already specified in the PSD permit 107-2087-00002, issued on December 9, 1991 for Boiler No. 4.

#### D.2 NO<sub>x</sub> Emissions Limitation [326 IAC 2-2]

Pursuant to 326 IAC 2-2 and PSD permit 107-2087-00002, issued on December 9, 1991, the NO<sub>x</sub> emissions from Boilers No.1 to 4 shall not exceed 26,080 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

#### D.3 NO<sub>x</sub> Emissions Reduction [326 IAC 2-2.5] [326 IAC 2-2]

- (a) In order to comply with the requirements of 326 IAC 2-2.5, the Permittee shall establish the following:
  - (1) A NO<sub>x</sub> emission rate (in pounds/MMBTU) prior to installation of the selective catalytic reduction (SCR) for Boiler No. 4, and

- (2) A NO<sub>x</sub> emission rate (in pounds/MMBTU) after the installation of the selective catalytic reduction (SCR) for Boiler No. 4.
- (b) The NO<sub>x</sub> emission rates established shall show a significant reduction in NO<sub>x</sub> emissions from Boiler No. 4, pursuant to 326 IAC 2-2.5, and render the requirements of 326 IAC 2-2 not applicable.

**D.4 Preventive Maintenance Plan (PMP) [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan (PMP), in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for Boiler No. 4 and its selective catalytic reduction (SCR).

**Compliance Determination Requirements**

**D.5 Selective Catalytic Reduction (SCR) Operation [326 IAC 2-2.5]**

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Except as otherwise provided by statute or rule, or in this permit, the selective catalytic reduction (SCR) shall operate at all times when Boiler No. 4 is operating, **to establish significant NO<sub>x</sub> emissions reductions.**

**D.6 NO<sub>x</sub> Emissions Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 12]**

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The Permittee shall continue to measure the NO<sub>x</sub> emissions from Boiler No. 4 by the use of a NO<sub>x</sub> CEMS.

**D.7 NO<sub>x</sub> Emissions Reduction Verification [326 IAC 2-2.5]**

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- (a) Prior to the start-up of the selective catalytic reduction (SCR) for Boiler No. 4, the Permittee shall calculate the emission rate of NO<sub>x</sub> (in pounds/MMBTU) from Stack 243 based on the most recent valid Relative Accuracy Test Audit (RATA) of the NO<sub>x</sub> continuous emission monitoring system (CEMS).
- (b) For the first ninety (90) days after the start-up of the selective catalytic reduction (SCR) for Boiler No. 4, the Permittee shall calculate the NO<sub>x</sub> emission rate (in pounds/MMBTU) from Stack 243 on an hourly basis, based on the NO<sub>x</sub> CEMS output.
- (c) The Permittee shall verify that there is a significant NO<sub>x</sub> emissions decrease.

**D.8 H<sub>2</sub>SO<sub>4</sub> Emissions [326 IAC 2-2.5] [326 IAC 2-2]**

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The Permittee shall monitor the H<sub>2</sub>SO<sub>4</sub> emissions increase due to the installation and operation of the selective catalytic reduction (SCR) for Boiler No. 4.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.9 Record Keeping Requirements**

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- (a) The Permittee shall record the emission rates of NO<sub>x</sub> from Boiler No. 4 on a monthly basis. The Permittee shall perform the required record keeping pursuant to 326 IAC 3-5-6.
- (b) The Permittee shall maintain records that verify the emissions rates of H<sub>2</sub>SO<sub>4</sub> of Boiler No. 4 and made available upon request to IDEM, OAQ and the USEPA.
- (c) The Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan and make available upon request to IDEM OAQ and the USEPA.

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.10 Reporting Requirements**

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The Permittee shall submit a quarterly report of excess emissions of the NO<sub>x</sub> CEMS, using the Quarterly Deviation and Compliance Monitoring or its equivalent, within thirty (30) days after the end of the quarter being reported.

The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**PART 70 SOURCE MODIFICATION  
CERTIFICATION**

Source Name: Alcoa Power Generating Inc. - Warrick Power Plant  
Source Address: 4700 Darlington Road, Newburgh, Indiana 46730  
Mailing Address: P.O. Box 10, Newburgh, Indiana 47629-0010  
Source Modification No.: SSM/PCP 173-18485-00002

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.**

Please check what document is being certified:

- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Alcoa Power Generating Inc. - Warrick Power Plant  
Source Address: 4700 Darlington Road, Newburgh, Indiana 46730  
Mailing Address: P.O. Box 10, Newburgh, Indiana 47629-0010  
Source Modification No.: SSM/PCP 173-18485-00002

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_

This form consists of 2 pages

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

**Page 2 of 2 of Quarterly Deviation and Compliance Monitoring Report**

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By:

Title/Position:

Date:

Telephone:

Attach a signed certification to complete this report.



**Indiana Department of Environmental Management  
Office of Air Quality**

Addendum to the Technical Support Document (TSD)  
Part 70 Significant Source Modification (SSM)  
And Pollution Control Project (PCP)

**Source Background and Description**

Source Name:	Alcoa Power Generating Inc. - Warrick Power Plant
Source Location:	4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address:	P. O. Box 10, Newburgh, Indiana 47629
County:	Warrick
SIC Code:	4911, 4931
Significant Source Modification No.:	173-18485-00002
Permit Writer:	Iryn Calilung 317/233-5692 icalilun@dem.state.in.us

**Public Notification and Participation**

On January 21, 2004, the Office of Air Quality (OAQ) had a notice published in the Boonville Standard, Boonville, Indiana, stating Alcoa Power Generating Inc. - Warrick Power Plant (APGI) had applied for an air approval to construct a pollution control project.

**Public Hearing**

Mr. John Blair of Evansville, IN, on behalf of the Valley Watch, requested a public hearing and an extension of the standard 30-day comment period to 45 days because he feels this plant is one of the worst polluting plants in the United States and this plant and the smelter puts more toxic pollution in the air than is emitted in Los Angeles, CA.

On March 3, 2004, the OAQ held a public hearing for the proposed air approval for Alcoa Power Generating Inc. - Warrick Power Plant (APGI) as requested by Mr. Blair. The public comment period was extended to March 3, 2004.

**Comments Received**

- (a) On February 13, 2004, the OAQ received written comments from Alcoa Power Generating Inc. (APGI).
- (b) Mr. John Blair provided written and oral comments during the public hearing.
- (c) Dr. Joanne Alexandrovich also provided written and oral comments during the public hearing.

The comments are arranged by similar topic and summarized below, with corresponding responses. Detailed oral comments can be found in the transcript of the public hearing. The transcript is considered part of the permit file.

**NO<sub>x</sub> Emission Limitations, Reduction and Verification**

(1) NO<sub>x</sub> Emission Limitations - - Boilers No. 1 - 4

Alcoa Power Generating Inc. (APGI) currently has a federally enforceable nitrogen oxides (NO<sub>x</sub>) emission limit of 26,080 tons/year, which is applicable for the plant in its entirety. The NO<sub>x</sub> budget program will not cause APGI to exceed this limit. APGI thus requests that proposed condition D.2 be removed from the permit, and that Condition D.2 be amended (as stated in PSD Permit 107-2087-00002) as follows:

“Total NO<sub>x</sub> emissions from units 1-4 shall be limited to 26,080 tons per year, based on a 365 day average rolled on a daily basis, derived from a summation of NO<sub>x</sub> CEMS data.”

APGI disagrees with IDEM that PSD permit 107-2087-00002 was issued only for Unit 4. Permit 107-2087-00002 is applicable for all 4 units on a combined basis.

As IDEM correctly pointed out on page 1 of its Technical Support Document (TSD), APGI filed a permit appeal for SSM/PCP 107-16275-00002, when IDEM tried to subdivide the annual NO<sub>x</sub> emission limitation of 26,080 tons/year into a limit of 10,689 tons/year for Unit 4, and 15,391 tons/year for Units 1-3 combined.

APGI also requests that Condition D.2 delete all references to SSM/PCP 107-16275-00002, since that permit was not applicable for Unit 4. (APGI)

(2) Existing NO<sub>x</sub> Emissions - - Boiler No. 4

Subdivision of the annual NO<sub>x</sub> annual emission limitation does, in fact, revise PSD permit 107-2087-00002, because it removes the ability of APGI to use lower emissions from Units 1 -3 to offset Unit 4 emissions, if needed. Furthermore, the limits specified by 107-2087-00002 are not pertinent to this pollution control project. APGI thus requests that D.1(c) be deleted. (APGI)

(3) NO<sub>x</sub> Emission Reduction - - Boiler No. 4

326 IAC 2-2.5-2(a) defines pollution control project as an activity or project undertaken for the purpose of reducing emissions from the unit. The referenced definition does not specify the size of the reduction, only that there be a reduction. Thus, IDEM is trying to impose a permit condition beyond the scope of pollution control project, as defined above. APGI thus requests that D.3 (b) be amended as follows:

“The NO<sub>x</sub> emission rates established shall show a reduction in NO<sub>x</sub> emissions from boiler #4, pursuant to 326 IAC 2-2.5, and render the requirements of 326 IAC 2 -2 non-applicable.” (APGI)

(4) NO<sub>x</sub> Emission Reduction Verification - - Boiler No. 4

APGI also requests that Condition D.7 (c) be amended as follows:

“The Permittee shall verify that there is a NO<sub>x</sub> emissions decrease.” (APGI)

IDEM Response:

The proposed pollution control project is to retrofit Boiler No. 4 with a Selective Catalytic Reduction (SCR) unit to reduce nitrogen oxides (NO<sub>x</sub>) emissions. Due to the retrofitting, there is an expected significant net emissions increase of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions. This H<sub>2</sub>SO<sub>4</sub> significant net emissions increase was exempted from major Prevention Significant Deterioration (PSD) review because of the expected significant reductions in NO<sub>x</sub> emissions. The project was evaluated to be environmentally beneficial as long as concrete and definite reduction in NO<sub>x</sub> emissions were shown. The intent of the pollution control project exemption is to show significant emission reductions of at least one criteria pollutant, such that the significant net emissions increases of the collateral emissions of the control device are exempted from major review.

In November 2003, Boilers No. 1 to 3 were approved to retrofit the low NO<sub>x</sub> burners with over fire air system Low NO<sub>x</sub> burners to further reduce NO<sub>x</sub> emissions. During the review of the pollution control project for Boilers No. 1 to 3, it was determined that it is necessary to re-evaluate the NO<sub>x</sub> allocations of the boilers to assure that there is definite reduction in NO<sub>x</sub> emissions from Boilers No. 1 to 3. The approval specifically indicated that the NO<sub>x</sub> emissions allotted for Boilers No. 1 to 3 were 15,391 tons/year. The appeal of air approval 107-16275-00002 has not been resolved. IDEM determined that until the appeal is resolved, the technical basis of the air approval used to determine the pollution control project and PSD major review exemption for Boilers 1 to 3 are valid.

Condition No. D.2 was revised to provide clarification that Boilers No. 1 to 4 have a total NO<sub>x</sub> limit of 26,080 tons/year, and that Boiler No. 4 does not specifically have a NO<sub>x</sub> limitation of its own even though Boilers No. 1 to 3 have been specifically limited to 15,391 tons/year, under SSM/PCP Permit 107-16275-00002, issued on November 6, 2002. Boiler No. 4 may emit NO<sub>x</sub> emissions as long as its actual emissions added to the total actual emissions of Boilers No. 1 to 3 do not exceed the allowable NO<sub>x</sub> emissions for the 4 boilers.

D.2 NO<sub>x</sub> Emissions Limitation [326 IAC 2-2] ~~[326 IAC 2-2.5]~~

Pursuant to:

~~326 IAC 2-2,~~

~~326 IAC 2-2.5,~~

~~PSD permit 107-2087-00002, issued on December 9, 1991, and~~

~~SSM/PCP Permit 107-16275-00002, issued on November 6, 2002,~~

~~the NO<sub>x</sub> emissions from Boiler No. 4 shall not exceed 10,689 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

**Pursuant to 326 IAC 2-2 and PSD permit 107-2087-00002, issued on December 9, 1991, the NO<sub>x</sub> emissions from Boilers No.1 to 4 shall not exceed 26,080 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

Existing NO<sub>x</sub> emission limitations and actual emissions for Boiler No. 4 are the pertinent information used in the evaluation of the proposed pollution control project. Existing NO<sub>x</sub> emission limitations and actual emissions, whether in terms of tons/year or pounds per heat input of the boiler, are the base lines used to determine and confirm that there will be significant emission reductions and that the project is environmentally beneficial.

There are other NO<sub>x</sub> emission limitations and requirements specified for Boiler No. 4, however, this pollution control project is not the approval that revised the NO<sub>x</sub> emissions for Boiler No. 4.

The pollution control project for Boilers No. 1 to 3 was the project that made the revisions to the total  $\text{NO}_x$  emissions.

The installation and operation of SCR unit in Boiler No. 4 is expected to increase the sulfuric acid ( $\text{H}_2\text{SO}_4$ ) emissions to approximately 400 tons per year. The main goal of the PSD exclusion for the project is to prove, verify and confirm that there is environmental benefit due to the project. To be considered environmentally beneficial, the  $\text{NO}_x$  emissions reductions have to be significant. If the  $\text{NO}_x$  limit is maintained as before, then there is no enforceable requirement that keeps the significant sulfuric acid ( $\text{H}_2\text{SO}_4$ ) emissions increase from PSD requirements.  $\text{NO}_x$  emissions reductions have to be specified to assure that the reduction is clearly enforceable and that the sulfuric acid emissions increase is exempted from PSD major review.  $\text{NO}_x$  emissions reductions have to be significant to confirm that the project is environmentally beneficial.

IDEM did not indicate in the draft permit or its supporting document that PSD permit 173-2087-00002 was issued for Boiler No. 4 only. In fact, in the first paragraph of Page 1 of the technical support document, it was indicated that this specific PSD permit was issued for the modification of APGI's 4 existing boilers.

There are no changes in Conditions D.1(c), D.3(b) and D.7(c) due to these comments.

**Selective Catalytic Reduction (SCR) Unit Construction and Operation**

(1) SCR Operation

- (a) Condition D.5 requires APGI to operate the Selective Catalytic Reduction (SCR) unit continuously whenever boiler #4 operates. Operation of the SCR is only required for two reasons:
- (i) Long enough to establish an NO<sub>x</sub> emissions reduction, and
  - (ii) If APGI needs NO<sub>x</sub> emission reductions because it could not purchase enough allowances.

326 IAC 2-2.5 does not require continuous SCR operation, only that a reduction in NO<sub>x</sub> emissions be demonstrated.

APGI also finds that there are no requirements specified in 326 IAC 10 -4 requiring continuous operation of the SCR even during the ozone control period. Reference is made to the Second Notice of Comment Period, wherein IDEM described Electric Generating Units and Industrial Boilers, as follows:

“The reductions required from large utility and industrial boilers are proposed to be accomplished through participation in a regional cap and trade program among all the states subject to the NO<sub>x</sub> SIP call. Electricity generating units (EGUs) and non-electricity generating units (non-EGUs) would be allocated allowances for tons of NO<sub>x</sub> that they are allowed to emit during the ozone season. IDEM will allocate NO<sub>x</sub> allowances for the affected units and owners or operators of these units will be able to buy, sell, or trade allowances, as necessary to demonstrate compliance with the unit's NO<sub>x</sub> emissions cap. Because this program will be a regional program administered by U.S. EPA, sources will be able to buy, sell, or trade allowances across state boundaries and between different types of units and sources. “

If APGI could buy all of the allowances it needed from other sources, it possibly would not need to operate the SCR at all. Conversely, operation of the SCR by APGI creates the potential for generation of unused allowances, which it could sell, in order for another source to meet its allowance obligations.

Based on the above discussions, APGI requests that this condition be amended as follows:

“ Except as otherwise provided by statute or rule, or in this permit, the SCR shall operate as necessary to establish a NO<sub>x</sub> emissions reduction.” (APGI)

- (b) Mr. John Blair, on behalf of the Valley Watch, recommended that the permit clarify if the SCR is supposed to control NO<sub>x</sub> emissions during the ozone period only or required to operate it for twelve months.

(2) SCR Construction Date

APGI must activate the SCR unit promptly on February 21, 2004, because the Boiler No. 4 SCR activation is required to enable other SCR units to meet their schedules for being brought on-line throughout the electrical grid serviced by Boiler No. 4. APGI thus requests that this permit be issued by February 21, 2004. (APGI)

- (3) SCR for Boiler No. 4  
Mr. John Blair, on behalf of Valley Watch asked why aren't AGPI putting SCRs on all four boilers, instead of just 1 boiler.

IDEM Response:

As indicated in the initial review of this proposed pollution control project, the draft permit was evaluated in terms of the pollution control project exemption. The review did not deal with NO<sub>x</sub> Emissions Trading Program. There are no conditions in the draft permit that indicated how APGI should comply with the NO<sub>x</sub> Emissions Budget Trading program or when to specifically operate the selective catalytic reduction (SCR) unit. It has to be noted that the approval to construct the SCR under the pollution control project exclusion (326 IAC 2-2.5) is independent from the requirements of the NO<sub>x</sub> Budget Trading Program (326 IAC 10-4).

This permit is limited to the general approval to install and operate of the SCR as a pollution control project under the PSD rules. It does not specifically address the operation of the SCR, or any other operational requirements, related to complying with the NO<sub>x</sub> Budget Trading Program (326 IAC 10-4). The trading program can be implemented without conditions in this permit. Phase One of the trading program does not rely on any specific control requirement at AGPI. The OAQ currently has no authority to specifically require the operation of the SCR on Boiler No. 4 or any other units for any length of time. Compliance with those requirements will be more specifically addressed in the Part 70 Permit.

OAQ is aware that there are provisions provided by statute, rule or specific permit that the SCR unit might not be required to operate, thus the requirement was written (see D.5 below) providing such exclusion. However, at the same time, APGI has to operate the SCR unit such that at the end of a compliance period, significant NO<sub>x</sub> emissions reductions had occurred and minimized the collateral emissions as much as possible.

For further clarification, Condition D.5 has been revised as follows:

D.5 Except as otherwise provided by statute or rule, or in this permit, the selective catalytic reduction (SCR) shall operate at all times when Boiler No. 4 is operating, **to establish significant NO<sub>x</sub> emissions reductions.**

Under the existing state rules, a final action for the construction of this specific SCR unit needs to be issued no later than 120 days from the receipt of the application, taking into account any actions that will suspend the time period. Without suspension of the time period, the 120-day period is estimated to end on April 11, 2004.

OAQ received the application on December 11, 2003. The preliminary findings with draft permit were provided for public comment on January 21, 2004. The mandatory 30-day public comment period ended on February 20, 2004. A public hearing was held on March 3, 2004. The comment period was extended to March 3, 2004. Since a public hearing was held, an additional 45-day period was added to the permit accountability time period.

OAQ will not be able to issue the final permit on February 21, 2004 because OAQ has to make sure that any comments mailed on the last day of 30-day comment period have been received and responded. In addition to administrative steps, such as copying, distribution and electronic uploading of files, routine supervisory technical and quality assurance review have to be performed. However, OAQ is making every effort to meet the tight schedule that AGPI has indicated on their construction plan.

### Preventive Maintenance Plan (PMP)

APGI does not object to the requirement that a preventive maintenance plan (PMP) be required for the Selective Catalytic Reduction (SCR) unit, because the SCR has a direct impact on NO<sub>x</sub> emissions. However, it questions the requirement that a PMP also be established for the boiler. It thus requests that the condition D.4 be amended to require a PMP only for the SCR. (APGI)

#### IDEM Response:

The authority to require a Permittee to have preventive maintenance plans (PMPs) is under the Part 70 program. The Part 70 rules indicate the PMP requirements in:

- (1) 326 IAC 2-7-4(c)(4)(9) - - requires the Part 70 application to confirm the existence of an on-site PMP.
- (2) 326 IAC 2-7-5(13) - - requires the Part 70 operating permit to have a provision regarding a PMP.

APGI is an existing Part 70 source, and thus by the authority specified under 326 IAC 2-7 (Part 70), APGI has to develop, implement and maintain PMPs.

Since the State of Indiana already has an existing rule (326 IAC 1-6-3) regarding the content of PMPs, the Part 70 Operating Permit rules refer to this existing rule for the information necessary in a PMP.

This existing rule (326 IAC 1-6-3) applies to any person responsible for operating a facility shall prepare and maintain a PMP including the following information:

- (1) Identification of the individual(s) responsible for inspecting, maintaining and repairing emission control devices. [326 IAC 1-6-3(a)(1)]
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items and conditions. [326 IAC 1-6-3(a)(2)]
- (3) Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement. [326 IAC 1-6-3(a)(3)]

326 IAC 1-2-26 defines Facility as any one structure, piece of equipment, installation or operation, which emits or has the potential to emit any air contaminant.

Based on this, 326 IAC 1-6-3 applies to any person responsible for operating any one structure, piece of equipment, installation or operation, which emits or has the potential to emit any air contaminant shall prepare and maintain a PMP including the information specified in 326 IAC 1-6-3(a)(1) to (a)(3).

This PMP rule applies to a facility, and by definition, a facility does not necessarily have a control equipment to implement a PMP.

This rule did not limit the authority to any person responsible for operating any one control device to prepare and maintain a PMP.

This PMP rule applies to a facility, which may or may not have a control device.

If the facility required to have a PMP has a control device, then the PMP should include the information of the individual(s) responsible for inspecting, maintaining and repairing emission control devices. [326 IAC 1-6-3(a)(1)]

This rule did not indicate that the PMP is limited to control equipment only, rather the rule indicates that the PMP shall include this specific information for the control device. In the same manner, if the facility required to have a PMP does not have a control device, then the PMP should not include this specific information.

It has to be noted that there are at least 3 sets of information to be included in the PMP.

As the first set of information is limited to the personnel responsible for inspection, maintenance and repair of the emission control device(s), the other 2 remaining sets of information are not limited to control devices only.

-- A description of the items or conditions that will be inspected and the inspection schedule for said items and conditions. [326 IAC 1-6-3(a)(2)]

-- Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement. [326 IAC 1-6-3(a)(3)]

The preventive measures the Permittee does to ensure optimum operation of the boiler should satisfy the requirements of the PMP for the boiler.

There is no change in Condition D.4 due to this comment.

### Oral Comments Provided During the Public Hearing

The following is the summary of the oral comments given during the public hearing on May 3, 2004. Details of the comments can be found in the written official transcript for the hearing, which will be part of the permit file. Additional responses were provided, supplementing the responses made during the hearing.

1. In Favor of the Proposed Permit

Dr. Joanne Alexandrovich, the Vanderburgh County Ozone Officer, fully supports the issuance of this permit and the PSD exemption for the pollution control project because the expected NOx reductions will benefit the region with decreased ozone levels.

IDEM Response:

IDEM acknowledges the comments expressing support for the issuance of the permit.

There is no change in the draft permit due to this comment.

2. NOx SIP Call Deadline

Mr. John Blair, on behalf of the Valley Watch has concerns on the company's reticence to move forward after the NOx SIP call was first done, because this NOx SIP call has been out there for some time and it seems discussion between AGPI and IDEM did not even start until November 6, 2003.

IDEM Response:

This proposed air approval focuses on the pollution control aspect of the proposed retrofitting of Boiler No. 4 with a selective catalytic reduction (SCR) unit. As previously mentioned, this air approval does not specifically address with the NOx SIP call (NOx Budget Trading Program) requirements.

AGPI is required to comply with the NOx SIP call starting May 31, 2004. As long as by this date, AGPI complies with the requirements, IDEM considered the actions to be timely.

3. Plant Life Extension

Mr. John Blair, on behalf of the Valley Watch, has concerns that this proposed SCR retrofitting of Boiler No. 4 will extend the life of the plant. AGPI should also promise to the community and to IDEM and EPA that scrubbers will be put on this plant.

IDEM Response:

The purpose of the proposed pollution control project is to reduce NOx emissions. It is not the intent of the project to physically extend the life of Boiler No. 4 or the entire plant.

4. 2002 Actual Emissions

Mr. John Blair, on behalf of the Valley Watch, mentioned the 2002 Egrid data showing that the Warrick generating plant has emitted:

- 17,937 tons of NOx,
- 90,312 tons of SO<sub>2</sub>,
- 6,087,278 pounds of CO and
- 325 pounds of mercury.

The company is putting money into a power plant that should be shutdown because it is old and uncontrolled. The TRI data shows that AGPI emits toxic chemicals, such as ethylene glycol, hydrogen fluoride, arsenic, chromium, lead and manganese, to the air more than Los Angeles County, CA. This county is known as one of the polluted places on earth, but AGPI alone puts out more toxic emissions to the air than the entire county.

IDEM Response:

The OAQ has not compared in details the TRI information provided by Mr. Blair to county-wide or air quality base wide inventories of all sources of air pollution. Based on the general search of the TRI database, the inventory shows that Los Angeles County, CA has no emissions reported from sources of similar operations as AGPI (SIC Code 4911). The TRI program does not cover all sources of chemical emissions, such as mobile sources and other industry sectors. Accurate comparison of the air quality status of specific counties can not be based on one limited database, which is mainly based on emission reports submitted by limited industry groups or facilities.

Based on the IDEM Emission Inventory, significant decrease in SO<sub>2</sub> emissions have occurred from the power plant since 1999. This could be mainly due to the regulations under the Acid Rain Program (Title IV). The NOx emissions are also expected to significantly reduce with the operation of additional control equipment required under the NOx SIP call. Any future physical or operational changes to the plant that may be proposed may be subject to more stringent state and federal requirements.

IDEM seriously considers comments from the public and interested parties. However, IDEM does not have any legal basis to deny the permit or shutdown the entire plant. The permit was written to assure that AGPI will comply with the pollution control project provisions of Indiana's permit rules.

5. Responsible Official

Mr. John Blair, on behalf of the Valley Watch, commented that the responsible official should not be a title or position. It should indicate the name of the person and needs to be stated in the permit.

IDEM Response:

During the initial implementation stage of the Part 70 Operating Permit Program, IDEM specified the responsible official by name and title. However, due to personnel changes, IDEM issued numerous amendments revising issued Part 70 permits to reflect the current responsible official. IDEM evaluated that such amendments can be minimized if the responsible officials were specified by titles or positions only, without compromising the enforceability of the permit. This enables IDEM to concentrate resources in reviewing and issuing approvals of significant environmental impacts.

6. Ozone and PM 2.5 Attainment Status

Mr. John Blair, on behalf of the Valley Watch, indicated that the permit is incorrect in specifying the status of Warrick County as attainment because IDEM itself has recommended that Warrick County be nonattainment based on the new standard. The standard was promulgated in 1997. A monitor in the county recorded violations of the ozone standard over the last 3 years. Warrick County should be listed as nonattainment for ozone. This should be the same for PM 2.5. Clarification should be in the permit to indicate that Warrick County is officially attainment now, but it is going to be a nonattainment area.

Mr. Blair also pointed it out that it is significantly wrong that Vanderburgh County should be classified as non attainment for ozone and particulate matter, even though toxic emissions are relatively small, while the rest of the region was not re-classified.

IDEM Response:

US EPA has not yet designated any areas of the country as nonattainment areas under the eight hour ozone standard. Additional information and updates of the status of the Eight-Hour National Ambient Air Quality Standards for Ozone can be viewed in the IDEM's web site:  
<http://www.in.gov/idem/air/8hourstandard/index.html>

7. Ozone Season

Mr. John Blair, on behalf of the Valley Watch, commented that the ozone season indicated in the supporting document is incorrect and should be corrected.

IDEM Response:

The technical supporting document for the preliminary findings incorrectly indicated that the ozone control season to be from May 31 to September 30, which is equivalent to 123 days.

Pursuant to 326 IAC 10-4-2(56)(B), for 2005, and each year thereafter, ozone control period means the period beginning from May 1 of a year and ending on September 30 of the same year inclusive. This is equivalent to 153 calendar days.

This addendum to the technical support document serves as correction. Even with the correct ozone control period, the conclusion remains the same: there will be significant reductions in NOx emissions and increase in sulfuric acid mist emissions.

There is no change in the draft permit due to this comment because the ozone control period was only used for the environmental beneficial analysis of the project.

8. Sulfuric Acid Mist

Mr. John Blair, on behalf of the Valley Watch, recommended that there should be a provision in the permit for further review and revisit the permit if sulfur acid mist emissions becomes a problem, such as affecting the people who live in Newburgh or Yankeetown. 90,000 tons of SO<sub>2</sub> causes fine particle formation and causes asthma.

IDEM Response:

The technical support document (TSD) lays out the basis for calculating the existing sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions from Boiler No. 4 and the increase in emissions due to

the conversion of SO<sub>2</sub> to SO<sub>3</sub> then to H<sub>2</sub>SO<sub>4</sub> when the SCR is in operation. The OAQ used an EPA-approved dispersion model to estimate the impact that the increase H<sub>2</sub>SO<sub>4</sub> emissions would have on air quality in the vicinity of the plant. The impact would be between 0.6 to 1.8 microgram per cubic meter depending on whether the SCR was operated for 123 days or 365 days per year. The Permissible Exposure Level (PEL) for H<sub>2</sub>SO<sub>4</sub> established by OSHA is 1000 micrograms per cubic meter.

9. Mercury

Mr. John Blair, on behalf of the Valley Watch, pointed out that AGPI only have low NOx burners and electrostatic precipitators as pollution control equipment. It is pretty much burning coal and put in the sky. AGPI is the largest mercury polluters in the state of Indiana. The 2001 TRI indicated that 325 pounds of mercury were emitted. Mercury emissions result in reduced IQs and developmental disabilities for people exposed to it, in utero or at a very young age when the brains are developing.

IDEM Response:

IDEM acknowledges that this type of boiler emits mercury. However, until AGPI proposes either a physical or operation change to their boilers, at this time, IDEM does not have the authority to require AGPI beyond the existing applicable requirements for mercury.

On January 30, 2004, US EPA proposed a national emissions standards for mercury for electric utility steam generating units, which it is likely Boiler No. 4 will be subject to these requirements. These standards are scheduled to be finalized by December 2004. More details on the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Electric Utility Steam Generating Units, 40 CFR Part 63, Subpart UUUUU, can be found on <http://www.epa.gov/ttn/atw/utility/utiltoxpg.html>

10. Other Comments

Mr. John Blair, on behalf of the Valley Watch also provided comments on the assets of the company, age of the company's employees, rate of employment, cost of electricity production, and the future of the company. Details of the comments can be found in the written transcript of the hearing. Since IDEM does not have jurisdiction over these items, IDEM does not have responses to them.

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a Part 70  
Significant Source Modification (SSM) and Pollution Control Project (PCP)

**Source Background and Description**

Source Name:	Alcoa Power Generating Inc. - Warrick Power Plant
Source Location:	4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address:	P. O. Box 10, Newburgh, Indiana 47629
County:	Warrick
SIC Code:	4911, 4931
Significant Source Modification No.:	173-18485-00002
Permit Writer:	Iryn Calilung

**Permitting History of Boiler No. 4**

On December 9, 1991, the Office of Air Quality (OAQ) issued a Prevention of Significant Deterioration (PSD) permit (173-2087-00002) to Alcoa Power Generating Inc., for the modification of its existing four (4) boilers, identified as Boilers Nos. 1, 2, 3, and 4. This PSD permit limited the total NO<sub>x</sub> emissions of the 4 boilers to 26,080 tons/year. These four (4) boilers are subject to the Indiana's Nitrogen Oxides (NO<sub>x</sub>) Budget Trading Program, required under 326 IAC 10-4. This trading program requires Alcoa to reduce NO<sub>x</sub> emissions during the ozone periods, starting May 31, 2004. The period between May 31 to September 30 is considered the ozone period.

On November 6, 2003, Boilers Nos. 1, 2, and 3 have been approved under air permit 107-16275-00002, to be retrofitted with Low NO<sub>x</sub> burners to reduce NO<sub>x</sub> emissions. The goal is to comply with the Nitrogen Oxides (NO<sub>x</sub>) Budget Trading Program required under 326 IAC 10-4.

The low NO<sub>x</sub> burners installation was reviewed under the pollution control project (PCP) exclusion provided under 326 IAC 2-2.5, due to the reduction in NO<sub>x</sub> emissions and increase in the CO collateral emissions. As part of the PCP review, Boiler No. 4 was allotted 10,689 tons of NO<sub>x</sub> per year of the total NO<sub>x</sub> emissions limitations 26,080 tons/year. Alcoa submitted an appeal regarding this change in allotment of NO<sub>x</sub> emissions. The appeal has not been resolved.

It was also determined at that time that the proposed retrofitting of Boiler No. 4 with a selective catalytic reduction (SCR) unit to control NO<sub>x</sub> emissions will not result in significant emissions increase, thus the SCR retrofitting of Boiler No. 4 was not included in that review. However, after the construction of the SCR, it was determined that it will cause significant emissions increase of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions. Thus, an application is necessary.

Pursuant to 326 IAC 2-2(jj)(1)(M), a modification with a net emissions increase of 7 tons per year or more of H<sub>2</sub>SO<sub>4</sub> acid mists shall be considered significant. However, such significant increase can be exempted from PSD review under the pollution control project (PCP) exclusion. Detailed calculations and evaluations for the PCP exclusion are shown in the subsequent pages of this TSD.

The selective catalytic reduction (SCR) is a technically advanced post-combustion technology capable of reducing NO<sub>x</sub> emissions. SCR technology involves the injection of ammonia (NH<sub>3</sub>) into the flue gas that passes through a catalyst bed in which the ammonia and nitrogen oxides react to form harmless nitrogen and water vapor. Under typical SCR design and operating conditions, NO<sub>x</sub> reduction efficiency is directly proportional to the NH<sub>3</sub>: NO<sub>x</sub> ratio resulting in NO<sub>x</sub> reduction levels up to about 80%. Most catalysts can operate within a range of 450° to 840° F; optimum performance occurs between 675° and 840° F. The entire system is based on a very simple

chemical reaction, but there are difficulties that can accompany the use of  $\text{NH}_3$ . The greater the quantity of  $\text{NH}_3$  exposed to the  $\text{NO}_x$ , the greater is the quantity of  $\text{NO}_x$  that are eliminated from the emissions. However, if there is too much  $\text{NH}_3$  or if catalyst activity declines, some  $\text{NH}_3$  will pass ("slip") through the catalyst bed without reacting. This  $\text{NH}_3$  is free to react with any sulfur trioxide ( $\text{SO}_3$ ) present in the reactor to form ammonium bisulfate ( $\text{NH}_4\text{HSO}_3$ ), a substance which plugs and corrodes downstream equipment. High-sulfur coals, which produce high levels of  $\text{SO}_3$ , increase the importance of preventing  $\text{NH}_3$  slip. If there is sufficient  $\text{NH}_3$  slip control, more  $\text{NH}_3$  can be added to the flue gas resulting in 90% or better  $\text{NO}_x$  reduction.

## Proposed Modification

On December 11, 2003, the OAQ received an application from Alcoa to operate Boiler No. 4 with a selective catalytic reduction (SCR). The SCR is intended to reduce the  $\text{NO}_x$  emissions from Boiler No. 4. Alcoa is proposing the installation and operation of the SCR to fulfill the requirements of the  $\text{NO}_x$  Budget Trading Program specified under 326 IAC 10-4-9(d)(3)(A).

The installation of the selective catalytic reduction (SCR) is reviewed under the pollution control project (PCP) exemption specified in 326 IAC 2-2.5, thus the significant emissions increase associated with the project is exempted from PSD review. Detailed evaluation under the PCP exemption is shown in the subsequent pages of this TSD. This review does not deal with the evaluation of this control and or if the  $\text{NO}_x$  reductions are adequate or not to satisfy the  $\text{NO}_x$  Budget Trading Program. A separate approval will be issued for that review. The OAQ received the application (173-17049-00002) for this program on September 15, 2003.

This review is concentrated on the new source review and Part 70 permitting of the selective catalytic reduction (SCR) for Boiler No. 4. This review does not deal with the existing applicable requirements, compliance methods and other control technologies of Boiler No. 4.

Boiler No. 4 is a dry bottom, pulverized coal-fired boiler, with a nominal heat input capacity of 2,958 million BTU per hour (MMBTU/hour), and exhausting to a stack identified as Stack 243. Boiler No. 4 has a natural gas burner for start-up, which may be fired in conjunction with the coal-fired capability.

In addition to the selective catalytic reduction (SCR), Boiler No. 4 utilizes the following control technologies:

- An electrostatic precipitator (ESP), and
- A low  $\text{NO}_x$  burner.

Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide ( $\text{SO}_2$ ) and nitrogen oxides ( $\text{NO}_x$ ) emissions are measured with a  $\text{SO}_2$  continuous emission monitor system (CEMS) and a  $\text{NO}_x$  CEMS, respectively.

**Potential To Emit of Modification** (Boiler No. 4 only)

Since the installation and operation of the selective catalytic reduction (SCR) for Boiler No. 4 does not impact the PM, PM<sub>10</sub>, CO and VOC emissions, the following evaluation is limited to its impact to the NO<sub>x</sub>, SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> emissions.

Boiler No. 4 has a nominal heat input capacity of 2,958 MMBTU/hour.

<b>Table 1 NO<sub>x</sub> Emissions</b>		
<b>NO<sub>x</sub> Emissions</b>	<b>tons/year</b>	<b>Methodology</b>
NO <sub>x</sub> Limited PTE	10,689	This limited PTE was indicated in the Permit 107-16275-00002, issued on November 6, 2002.
NO <sub>x</sub> Average Actual Emissions	7,843.1	These actual emissions are based on the OAQ Emission Inventory and they are the same rates that Alcoa indicated in its application for this review. These actual emissions were based on the outputs of the NO <sub>x</sub> CEMS.  Average actual emissions = (2002 + 2001)/2 = (10,843.6 + 4,842.6)/2 Average actual emissions = 7,843.1 tons/year
Manufacturer's NO <sub>x</sub> Emissions Guarantee	1,554.72	These are the NO <sub>x</sub> emissions after the SCR with the assumption that the SCR is going to operate at all times:  NO <sub>x</sub> = (2,958 MMBTU/hour)*(0.12 lbs/MMBTU) *(8,760 ours/year)*(1 ton/2000 lbs) NO <sub>x</sub> = 1,554.72 tons/year
The selective catalytic reduction (SCR) supplier guaranteed a maximum outlet NO <sub>x</sub> concentration of 0.12 lbs/MMBTU.  This is a reduction from the 2002 actual maximum hourly rate of 0.99 lbs/MMBTU.	9,028.05	These are the NO <sub>x</sub> emissions after the SCR with the assumptions that the SCR is going to operate during the ozone period only (May 31 to September 30, equivalent to (123 days) and the SCR is not going to operate during non-ozone periods (365 days-123 days = 242 days/year):  Non-ozone period = (2,958 MMBTU/hour)*(0.99 lbs/MMBTU) *(242 days/period)*(24 hours/day)*(1 ton/2000 lbs) = 8,504.13 tons/year Ozone period = (2,958 MMBTU/hour)*(0.12 lbs/MMBTU)*(123 days/period)*(24 hours/day)*(1 ton/2000 lbs) = 523.92 tons/year  NO <sub>x</sub> = Non-ozone period + ozone period NO <sub>x</sub> = 8,504.13 + 523.92 = 9,028.05 tons/year
NO <sub>x</sub> Reductions	9,134.28	This NO <sub>x</sub> reduction determination is based on the assumption that the SCR is going to operate at all times: NO <sub>x</sub> = Limited PTE - PTE after SCR NO <sub>x</sub> = 10,689 - 1,554.72 = 9,134.28 tons/year
	1,660.95	This NO <sub>x</sub> reduction determination is based on the assumption that the SCR is going to operate during ozone period only: NO <sub>x</sub> = Limited PTE - PTE after SCR NO <sub>x</sub> = 10,689 - 9,028.05 = 1,660.95 tons/year
Conclusion		There are other different methodologies that can be used to determine how much NO <sub>x</sub> emissions expected will be reduced, however, in all cases, there are expected significant decreases in NO <sub>x</sub> emissions due to the installation of the SCR for Boiler No. 4.

<b>Table 2 SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> Emissions</b>		
Factors	tons/year	Comments
SO <sub>2</sub> Limited PTE (Without SCR)	66,138	PSD permit 173-2087-00002, issued on December 9, 1991, limited the SO <sub>2</sub> emissions from Boiler No. 4 to be 181.2 tons/day, based on a 30-day average.  Limited SO <sub>2</sub> = (181.2 tons/day)*(365 days/year) Limited SO <sub>2</sub> = 66,138 tons/year
SO <sub>2</sub> Actual Emissions (Without SCR)	35,654.76	These actual emissions are based on the OAQ Emission Inventory. These actual emissions rates are the same rates that Alcoa indicated in the application for this review. These actual emissions were based on the output of the SO <sub>2</sub> CEMS.  Average actual emissions = (2002 + 2001)/2 = (40,475.51+ 30,834)/2 Average actual emissions = 35,654.76 tons/year
H <sub>2</sub> SO <sub>4</sub> PTE (Without SCR)	919.88	The present rate of sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) is 0.071 lbs/MMBTU.  H <sub>2</sub> SO <sub>4</sub> = (2,958 MMBTU/hour)*(0.071 lbs/MMBTU) *(8,760 hours/year)*(1 ton/2000 lbs)
H <sub>2</sub> SO <sub>4</sub> Actual Emissions (Without SCR)	781.2	Boiler No. 4 emitted these actual emissions in 2002.
Manufacturer's Guarantee  It is expected that 0.5% of SO <sub>2</sub> is converted to SO <sub>3</sub> when the SCR is in operation.		Sulfur trioxide (SO <sub>3</sub> ) is formed from SO <sub>2</sub> . SO <sub>3</sub> forms sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) when it comes in contact with water. Based on stack test: there are 1.225 pounds of H <sub>2</sub> SO <sub>4</sub> per pound of SO <sub>3</sub> .
H <sub>2</sub> SO <sub>4</sub> Increase  (With SCR)	405.1	If the SCR is going to operate at all times at maximum capacity, the H <sub>2</sub> SO <sub>4</sub> emissions increase in addition to the H <sub>2</sub> SO <sub>4</sub> emitted without the SCR are: SO <sub>3</sub> = (66,138 tons SO <sub>2</sub> /year)*(0.005 tons SO <sub>3</sub> /ton SO <sub>2</sub> ) SO <sub>3</sub> = 330.69 tons/year H <sub>2</sub> SO <sub>4</sub> = (330.69 tons SO <sub>3</sub> /year)*(1.225 lbs H <sub>2</sub> SO <sub>4</sub> /lb SO <sub>3</sub> ) = 405.1 tons/year  Total H <sub>2</sub> SO <sub>4</sub> = 919.88 + 405.1 = 1,324.98 tons/year
	136.51	If the SCR is going to operate during the ozone period only (May 31 to September 30, equivalent to 123 days) and the SCR is not going to operate during non-ozone periods (365 days-123 days = 242 days/year), the H <sub>2</sub> SO <sub>4</sub> emissions increase in addition to the H <sub>2</sub> SO <sub>4</sub> emitted without SCR are: H <sub>2</sub> SO <sub>4</sub> = (405.1 tons/year)*(1 year/365 days) *(123 days/year) H <sub>2</sub> SO <sub>4</sub> = 136.51 tons/year  Total H <sub>2</sub> SO <sub>4</sub> = 919.88 + 136.51 = 1,056.39 tons/year
Conclusion	There are other different methodologies that can be used to determine how much additional H <sub>2</sub> SO <sub>4</sub> emissions will be emitted, however, in all cases, there are expected significant increases in H <sub>2</sub> SO <sub>4</sub> emissions due to the installation of the SCR for Boiler No. 4.	

### Pollution Control Project (PCP) Exclusion

This project is evaluated as a PCP. A project that is considered a PCP is exempted from PSD major review and requirements even though the collateral emissions increase are greater than the PSD significant levels.

Table 3 shows the criteria used to determine if the proposed modification is a PCP according to the existing state rules.

<b>Table 3</b>		<b>PCP Evaluations</b>	
Rule 326 IAC	Criteria and Evaluations		
2-2.5-2(b) & 2-2.1-1(13)	PCP means an activity or project undertaken at an existing emission unit for the purposes of reducing emissions.		
	Alcoa is proposing to retrofit Boiler No. 4 with a selective catalytic reduction (SCR) unit to reduce NO <sub>x</sub> emissions.		
2-2.5-2(b)(1)(H)	PCP is a pollution prevention project that IDEM has determined to be environmentally beneficial.		
	The proposed modification is not considered a pollution prevention project because the installation of the selective catalytic reduction (SCR) is considered an add on control.		
2-2.5-2(b)(2) & 2-2.1-1(13)	PCP does not include the replacement of an existing emission unit with a newer or different unit.		
	There will be no construction of a new emitting unit in this proposed modification. There will be no replacement of an existing emitting unit in this proposed modification.		
2-2.5(d)(1)	Types and quantity of air pollutants emitted before and after the project.		
	The installation and operation of the selective catalytic reduction (SCR) unit is not expected to impact the PM, PM <sub>10</sub> , CO and VOC emissions of Boiler No. 4. See Tables 1 and 2 for the emissions impact of this proposed modification on the NO <sub>x</sub> , SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub> emissions. H <sub>2</sub> SO <sub>4</sub> mist emissions are considered significant if the modification has net emissions increase of 7 tons/year of H <sub>2</sub> SO <sub>4</sub> or more, pursuant to 326 IAC 2-2-1(jj)(1)(M).		
2-2.5(d)(2)	Increase in pollutants other than those targeted in the project shall be reviewed, has to be minimized and does not result in environmental harm.		
	H <sub>2</sub> SO <sub>4</sub> emissions are the only pollutants expected to increase due to this modification. Ammonia (NH <sub>3</sub> ) is also expected to be emitted due to this modification, however, NH <sub>3</sub> is not one of the hazardous air pollutants. It is also not one of the criteria pollutants.		
2-2.5(d)(3)	Result in an unacceptable increase risk due to the release of air toxic is not environmentally beneficial.		
	There is no expected increase in the potential to emit of hazardous air pollutants that are already emitted.		
2-2.5(b)	A PCP that causes a significant net emission increase pursuant to 326 IAC 2-2 must be approved by US EPA under the SIP prior to beginning actual construction.		
	The installation and operation of the SCR is expected to increase the H <sub>2</sub> SO <sub>4</sub> emissions.		
2-2.5(b)	To get an approval for a PCP, the applicant shall submit a SSM application.		
	Alcoa submitted an application on December 8, 2003.		
	Cause and Contribute Test and Cross Media Evaluation		
	This source is located in an attainment status; therefore, this test does not apply. There is no need to perform a cross media evaluation.		
Conclusion	Based on the evaluations and fulfillment of the PCP criteria, the installation of the selective catalytic reduction (SCR) for Boiler No. 4 is considered a pollution control project.		

### Justification for Modification

- (1) The source is being modified through a Part 70 Significant Source Modification (SSM).
  - (a) Pursuant to 326 IAC 2-7-10.5(f)(4)(D), a modification with PTE greater than 25 tons/year shall be processed as SSM.
  - (b) Pursuant to 326 IAC 2-7-10.5(f)(8) and (f)(9), a PCP is to be process as a SSM.
  - (c) 326 IAC 2-2.5(b) also confirms that a PCP is an application to be processed as a SSM.
- (2) The SSM approval that is going to be proposed and finalized is intended only to satisfy the construction and operating Part 70 programs. This review does not deal with the evaluation if this control and or the NO<sub>x</sub> reductions are adequate or not in terms of the NO<sub>x</sub> Emissions Budget Trading Program.
- (3) Since the Part 70 Operating Permit for this source has not been issued yet, the approval will allow the source to construct and operate the selective catalytic reduction (SCR) for Boiler No. 4.

### County Attainment Status

The source is located in Warrick County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Warrick County has been classified as attainment for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more, and it is one of the 28 listed source categories.

### Federal and State Rules Applicability

- (1) There are no new or additional federal requirements applicable to the installation and operation of the selective catalytic reduction (SCR) for Boiler No. 4.
- (2) The existing applicable requirements specified in the PSD permit 173-2087-00002, issued on December 9, 1991 are not changed due to this pollution control project.
- (3) The construction and operation of the selective catalytic reduction (SCR) for Boiler No. 4 is not considered a PSD major modification because pursuant to 326 IAC 2-2.5 (1)(a), a PCP at an existing source shall not constitute a major modification under 326 IAC 2-2-1(x). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (4) Requirements to operate and proper monitoring of the operation of the selective catalytic reduction (SCR) for Boiler No. 4 will be specified in the air approval to assure that the proposed project was constructed as a pollution control project.
- (5) As previously indicated, Boiler No. 4 is subject to the NO<sub>x</sub> Budget Trading Program specified in 326 IAC 10-4. However, this air approval will not specify these requirements because a separate review is under way.

A condition will be specified that the selective catalytic reduction (SCR) shall operate at all times, except as otherwise provided by statute or rule. However, this condition will not specify that the SCR is necessary to assure the NO<sub>x</sub> allowances specified by 326 IAC 10-4-9. As previously indicated, this approval will not deal with the NO<sub>x</sub> Emissions Budget Trading Program.

- (6) There are no specific state requirements for the H<sub>2</sub>SO<sub>4</sub> emissions increase.

### Air Quality Impact Analysis

- (1) Pursuant to 326 IAC 2-2.5(e), the OAQ may request the applicant to submit an air quality impact analysis of the criteria pollutant net emissions increase of the PCP. The OAQ did not require the applicant to submit an air impact analysis because:
  - (a) The PTE of Boiler 4 after the PCP of regulated pollutants except H<sub>2</sub>SO<sub>4</sub> is expected to be less than the PTE of Boiler No. 4 before the PCP.
  - (b) The limited SO<sub>2</sub> and NO<sub>x</sub> PTE of Boiler No. 4 are not changed.
  - (c) The source is located in an attainment area.
  - (c) The source is not within the 50-mile radius of a Federal Class I area.
- (2) No air quality analysis is necessary for the H<sub>2</sub>SO<sub>4</sub> emissions increase.
- (3) No air quality modeling is necessary for HAPs because there is no expected increase in HAPs PTE.

### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill

the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5.

- (1) A SO<sub>2</sub> continuous emission monitor (COM) is used to measure SO<sub>2</sub> emissions.
- (2) A NO<sub>x</sub> COM is used to measure NO<sub>x</sub> emissions.

### **Testing Requirements**

Compliance certifications for the SO<sub>2</sub> CEM and NO<sub>x</sub> CEM, which are already required, will be maintained.

### **Recommendation**

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be provided to the public for review. The public review is limited to the construction and operation of the selective catalytic reduction (SCR) for Boiler No. 4. It is also limited to the PCP evaluation of the SCR. Since this is the case, existing applicable requirements of Boiler No. 4 will not be presented in the draft significant source modification.

An application for the purposes of this review was received on December 11, 2003. Unless otherwise stated in this TSD, information used in this review was derived from the application and additional information submitted by the applicant.

### **Conclusion**

The construction and operation of selective catalytic reduction (SCR) for Boiler No. 4 shall be subject to the conditions of the attached proposed Significant Source Modification and Pollution Control Project No. 173-18485-00002.