INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: April 18, 2008

RE: Alcoa Power Generating, Inc. - Warrick Power Plant / 173-22006-00002

FROM: Matthew Stuckey, Branch 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, Suite N 501E, 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.dot12/03/07

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April 18, 2008

Mr. Samuel H. Bruntz
Alcoa Power Generating, Inc. - Warrick Power Plant
Building 860E, P.O. Box 10
Newburgh, IN 47630-0010

Re: 173-22006-00002
Significant Source Modification to
Part 70 No. T173-6630-00002

Dear Mr. Bruntz:

Alcoa Power Generating, Inc. - Warrick Power Plant was issued Part 70 Operating Permit No.: T173-6630-00002 on June 13, 2006, for an electrical utility generating station. An application to modify the source was received on November 16, 2005. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction and/or modification at the source:

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NOx burner and over-fire air in 2003. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM), and a continuous opacity monitor (COM).

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NOx burner and over-fire air in 2004. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM), and a continuous opacity monitor (COM).

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NOx burner and over-fire air in 2002. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust

will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM), and a continuous opacity monitor (COM).

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of particulate matter. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet scrubber with lime injection began in 2005. Upon start-upon of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from stack 243 to stack 242, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

(e) One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2007 in order to accommodate the transfer of limestone.

(f) A limestone transfer and handling system, approved for construction in 2007, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of 40 tons, with fugitive emissions controlled by periodic watering by truck.

(2) One (1) limestone hopper, approved for construction in 2007, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) Three enclosed pipe conveyors, approved for construction in 2007, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

(g) One (1) dry flyash storage silo, approved for construction in 2007, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through stack 243.

(h) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2007, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere.

(i) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2007, each with a rated capacity of 500 horsepower, located at the Y-pit for the purpose of removing rainwater.

(j) Two (2) rental diesel generators that shall not exceed 775 hp each, approved for construction in 2007, identified as Engine1 and Engine2.

(k) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2007, rated at 465 horsepower, using no controls.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, and ask for Jenny Acker or extension 2-8253, or dial (317) 232-8253.

Sincerely,

Original signed by
Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

JLA
cc: File - Warrick County
U.S. EPA, Region V
Warrick County Health Department
Southwest Regional Office
Compliance Data Section
Administrative and Development

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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SIGNIFICANT SOURCE MODIFICATION TO A PART 70 OPERATING PERMIT 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 operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit 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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Significant Source Modification No. 173-22006-00002	
Issued by: *Original signed by* Matthew Stuckey, Branch Chief Permits Branch Office of Air Quality	Issuance Date: April 18, 2008

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New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]
G.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]
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Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report
Appendix A: Acid Rain Permit

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source 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 permit 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)] [326 IAC 2-7-1(21)]

The Permittee owns and operates a stationary electric utility generating station.

Source Address:	4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address:	Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Source Telephone:	(812) 842-3301
SIC Code:	4911
County Location:	Warrick
Source Location Status:	Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Nonattainment NSR Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NO_x burner and over-fire air in 2003. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 1 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator

(ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NO_x burner and over-fire air in 2004. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 2 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NO_x burner and over-fire air in 2002. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 3 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of particulate matter. Boiler No. 4 was configured with a low NO_x burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet limestone slurry absorber scrubber began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from existing stack 243 to new stack 243, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

This unit is not an affected facility under NSPS Da because it did not commence construction, modification, or reconstruction after September 18, 1978, or under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984. The low NO_x burner constructed in 1998 and the SCR system constructed in 2004 do not qualify as modifications as defined by 40 CFR 60, Subpart A. Specifically, the physical change did not result in increased to the atmosphere of any air pollutant (to which a standard applies) or result in any air pollutant not previously emitted.

(e) One (1) gas-fired boiler, identified as Emergency Rolling Mill Boiler, constructed in 1979, with a nominal heat input capacity of 79 million Btu per hour (MMBtu/hr) and exhausting to stack 242.

This unit is not an affected facility under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984.

(f) One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2008 in order to accommodate the transfer of limestone. The unloading station is not considered an affected facility under 40 CFR 60, Subpart OOO when unloading and transferring limestone because it is not physically connected to the crushing/grinding operations.

(g) A coal transfer system, constructed prior to 1974, with a nominal throughput of 1,300 tons of coal per hour, consisting of the following equipment:

(1) One (1) unloading station for trucks, adjacent to the 211 railcar dumper, with a drop point to an underground conveyor, with the drop point, identified as DP-1, equipped with wet suppression, and exhausting to the ambient air.

(2) The 211 rail car dumper, with an enclosed drop point to an underground conveyor, with the drop point, identified as DP-3, equipped with wet suppression and exhausting to the ambient air.

(3) One (1) 9.0 acre coal storage pile, having an estimated storage capacity of 300,000 tons, with fugitive emissions controlled by periodic watering by truck, and exhausting to the ambient air.

(4) The 210H truck hopper, with a drop point a coal storage pile identified as F-1, with the drop point equipped with wet suppression and exhausting to the ambient air.

(5) Multiple loading stations for trucks, with drop points to a coal storage pile, identified as F-1, uncontrolled and exhausting to the ambient air.

(6) Enclosed conveyor (4), with a drop point to the F-1 coal pile stacking tower, uncontrolled and exhausting to the ambient air.

(7) Enclosed conveyors 5 and 5A with each transfer point enclosed.

(8) Four (4) coal bunkers. Bunkers are loaded via a conveyor tripper system servicing Boilers No. 1, No. 2, No. 3 and No. 4. Particulate matter generated from loading bunkers is controlled by rotoclones and exhausts to the ambient air.

(9) One (1) enclosed coal crusher, constructed in 1960, with each transfer point equipped with wet suppression, and exhausting to the ambient air.

(10) Two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor, permitted in 2001, but not yet constructed, uncontrolled and exhausting to the ambient air.

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of 22,000 tons, with fugitive emissions controlled by periodic watering by truck. Under 40 CFR 60, Subpart OOO, this is not an affected unit since it is not directly connected to the product line of the nonmetallic mineral processing plant.

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) One (1) enclosed pipe conveyor, transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7 tons, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) gravity discharge chutes, all emissions control by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) gravity discharge chutes, the transfer point is enclosed and emissions are controlled by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, and 247.

Under 40 CFR 60, Subpart OOO, the one (1) limestone hopper, one (1) pipe conveyor, three (3) limestone day silos, three (3) weigh scales, three (3) gravity discharge chutes, and three (3) wet ball mill crushers are considered affected units.

(i) One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through silo vent 283C.

(j) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2008, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere. Under 40 CFR 60, Subpart OOO, this unit is not considered an affected unit.

(k) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2008, each with a rated capacity of 500 horsepower, located at the Y-pit

for the purpose of removing rainwater. Under 40 CFR 60, Subpart IIII, Y-pit pumps No. 1 and No. 2 are considered to be stationary internal combustion engines.

(l) Two (2) rental diesel units that shall not exceed 775 hp each, permitted in 2008, identified as Engine1 and Engine2. Pursuant to 40 CFR 60.1068, the rental diesel units are considered nonroad engines. Therefore, under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, the engines are not affected units.

Note: These rental diesel units will be installed on an as-needed basis.

(m) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2008, rated at 465 horsepower, using no controls. Under 40 CFR 60, Subpart IIII, the diesel emergency firewater pump engine is considered to be stationary internal combustion engine.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Conveyors as follows: [326 IAC 6-3]

(1) Underground conveyors.

(b) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-3]

(c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3]

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 B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T173-6630-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 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 the "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. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

(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.

(b) 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 is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(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, and 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: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) 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.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T173-6630-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

(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) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

(c) 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

(f) This condition does not apply to emission trades of SO_2 or NO_x under 326 IAC 21 or 326 IAC 10-4.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2] [326 IAC 2-3]

(a) The Permittee shall obtain approval as required by 326 IAC 2-7-10.5 from the IDEM, OAQ prior to making any modification to the source. Pursuant to 326 IAC 1-2-42, "Modification" means one (1) or more of the following activities at an existing source:

(1) A physical change or change in the method of operation of any existing emissions unit that increases the potential to emit any regulated pollutant that could be emitted from the emissions unit, or that results in emissions of any regulated pollutant not previously emitted.

(2) Construction of one (1) or more new emissions units that have the potential to emit regulated air pollutants.

(3) Reconstruction of one (1) or more existing emission units that increases the potential to emit of any regulated air pollutant.

(b) Any application requesting a source modification shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee shall also comply with the applicable provisions of 326 IAC 2-7-11 (Administrative Permit Amendments) or 326 IAC 2-7-12 (Permit Modification) prior to operating the approved modification.

(d) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification 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)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Motor Vehicle Fugitive Dust Sources [326 IAC 6-4-4]

Pursuant to 326 IAC 6-4-4, no vehicle shall be driven or moved on any public street, road, alley, highway, or other thoroughfare, unless such vehicle is so constructed as to prevent its contents from dripping, sifting, leaking, or otherwise escaping therefrom so as to create conditions which result in fugitive dust. This section applies only to the cargo any vehicle may be conveying and mud tracked by the vehicle.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC

1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. 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.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond

its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

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

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.

(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(3) Method 9 readings may be discontinued once a COMS is online.

(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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.

C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 14, 1996.

(b) Upon direct notification by IDEM, OAQ , that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.17 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2 6 4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

The emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(b) The emission statement 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.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3] [326 IAC 2-1.5-1]

(a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible 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) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2][326 IAC 2-3] [326 IAC 2-1.5-1]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) 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.

(d) 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).

(e) 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, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:

(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C- General Record Keeping Requirements

(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (d)(1) and (2) in Section C- General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Ambient Monitoring Requirements [326 IAC 7-3]

C.23 Ambient Monitoring [326 IAC 7-3]

(a) The Permittee shall operate a continuous ambient sulfur dioxide air quality monitor and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).

(b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]

(c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

SECTION D.1 FACILITY OPERATION CONDITIONS - Three (3) Coal-Fired Boilers (Boiler No. 1, Boiler No. 2, Boiler No. 3)

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

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NO_x burner and over-fire air in 2003. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 1 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NO_x burner and over-fire air in 2004. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 2 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

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(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NO_x burner and over-fire air in 2002. Construction of a dedicated wet limestone slurry absorber scrubber for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 3 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(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.1.1 PSD Minor Limit PM, NOx and H_2SO_4 [326 IAC 2-2]

(a) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubber for Boilers No, 1, No. 2, No. 3, and No. 4, PM emissions from Boilers No. 1, No. 2, and No. 3, combined, shall not exceed 1060.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(b) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, NOx emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1) and Boiler No. 4 (Section D.2), combined, shall not exceed 13,720.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NOx limits in Conditions D.1.1(b), D.2.1(b), and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(c) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4

(Section D.2), combined, shall be less than 677.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.016 lb/MMbtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance:

H_2SO_4 emissions = [(H_2SO_4 E.F. No. 1 x H.E. No. 1) + (H_2SO_4 E.F. No. 2 x H.E. No. 2) + (H_2SO_4 E.F. No. 3 x H.E. No. 3) + (H_2SO_4 E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

H_2SO_4 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb H_2SO_4/MMBtu heat input to the respective boiler

Note: H_2SO_4 E.F.4 limitation is contained in Condition D.2.1(c)

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 3, and No. 4, respectively

Compliance with the H_2SO_4 limits in Conditions D.1.1(c) and D.2.1(c) limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.1.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM_{10} emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall not exceed 4490.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the PM_{10} emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.08 lb/MMBtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance:

PM_{10} emissions = [(PM_{10} E.F. No. 1 x H.E. No. 1) + (PM_{10} E.F. No. 2 x H.E. No. 2) + (PM_{10} E.F. No. 3 x H.E. No. 3) + (PM_{10} E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

PM_{10} E.F. (No. 1, No. 2, No. 3, and No. 4) = lb PM_{10}/MMBtu heat input to the respective boiler

Note: PM_{10} E.F.4 limitation is contained in Condition D.2.2

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.1.3 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to CP 173-2087-00002, issued on December 9, 1991, and 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in

326 IAC 6-2-1(c)), the PM emissions exhausted from Boilers No. 1, No. 2, and No. 3 through Stacks 241 and 242 shall not exceed 0.228 pound per million Btu heat input (lb/MMBtu). Upon start-up of the dedicated wet scrubbers, Boiler 1 will exhaust to stack 241-1, Boiler 2 will exhaust to stack 241-2, and Boiler 3 will exhaust to stack 241-3. This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7029 MMBtu/hr (capacity of boilers 1-4)
N = 3 (number of stacks)
a = 0.8
h = 410 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

Boilers No. 1, No. 2, and No. 3 shall no longer be subject to this condition on and after the date the respective boiler is subject to the requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units: Requirements [40 CFR 60, Subpart Db] [326 IAC 12].

D.1.4 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:

(a) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed five (5) hours (fifty (50) six (6)-minute averaging periods) from the time of the first exceedance or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator, whichever occurs first.

Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(b) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed five (5) hours (fifty (50) six (6)-minute averaging periods) after de-energization of the ESP. Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(c) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging period in any sixty (60) minute period. The averaging periods in excess of the limit set in 326 IAC 5-1-2 shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

(d) If a facility cannot meet the opacity limitations of 326 IAC 5-1-3(b), the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

D.1.5 Sulfur Dioxide (SO_2) [326 IAC 7-4-10]

Pursuant to 326 IAC 7-4-10 (Warrick County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boilers No. 1, No. 2, and No. 3 shall not exceed 5.11 pounds per million Btu (lbs/MMBtu).

D.1.6 Carbon Monoxide (CO) Limitation [326 IAC 2-2] [326 IAC 2-2.5-1]

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, and as revised by this SPM 173-22581-00002, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) Upon start-up of the low NO_x burners associated with Boilers No. 1, No. 2, and No. 3, carbon monoxide (CO) emissions exhausted through Stacks 241 and 242 shall each not exceed 1,049.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.118 pounds per million British thermal unit heat input. Upon start-up of the dedicated wet scrubbers, Boiler 1 will exhaust to stack 241-1, Boiler 2 will exhaust to stack 241-2, and Boiler 3 will exhaust to stack 241-3. This condition shall expire when the CO emissions from Boilers No. 1, No. 2, and No. 3 are re-routed through stacks 241-1, 241-2, and 241-3, respectively.

(b) The carbon monoxide (CO) emissions from Boilers No. 1, No. 2, and No. 3, combined, exhausted through any combination of Stacks 241, 242, 241-1, 241-2, and 241-3 shall not exceed 2099.80 tons per twelve (12) consecutive month period with compliance determined at the end of each month and the following shall apply:

(1) Upon re-routing the CO emissions from Boiler No. 1 to stack 241-1, the carbon monoxide (CO) emissions exhausted through stack 241-1 shall be less than 0.10 pound per million British thermal heat input unit.

(2) Upon re-routing the CO emissions from Boiler No. 2 to stack 241-2, the carbon monoxide (CO) emissions exhausted through stack 241-2 shall be less than 0.10 pound per million British thermal heat input unit.

(3) Upon re-routing the CO emissions from Boiler No. 3 to stack 241-3, the carbon monoxide (CO) emissions exhausted through stack 241-3 shall be less than 0.10 pound per million British thermal heat input unit.

This condition shall expire when the CO emissions from Boilers No. 1, No. 2, and No. 3 are re-routed through stacks 241-1, 241-2, and 241-3, respectively.

(c) The combined carbon monoxide (CO) emissions exhausted through Stacks 241-1, 241-2, and 241-3 shall not exceed 2099.80 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.10 pound per million British thermal heat input unit.

D.1.7 NO_x Limitation [326 IAC 2-2] [326 IAC 2-2.5-1] [326 IAC 2-1.1-1(13)(A)(iii)]

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, 326 IAC 2-2.5 (Pollution Control Projects), in order to render PSD (Prevention of Significant Deterioration) not applicable, NO_x emissions from Boilers No. 1, No. 2, and No. 3 shall not exceed a total of 15,391 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

D.1.8 NO_x Reduction [326 IAC 2-2.5-1] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) In order to comply with the requirements of 326 IAC 2-2.5-1, Alcoa Power Generating Inc. - Warrick power plant shall establish the following:

(1) A pounds of NO_x per million British thermal unit heat input emission rate prior to installation of the low NO_x burners with over fire air, and

(2) A pounds of NO_x per million British thermal unit heat input emission rate after the installation of the low NO_x burners with over fire air.

(b) The pounds of NO_x per million British thermal unit emission rates established by paragraphs (a)(1) and (a)(2) shall show a reduction in NO_x emissions from Boilers #1 - #3 pursuant to 326 IAC 2-2.5-1, and render the requirements of 326 IAC 2-2 not applicable.

D.1.9 Sulfur Dioxide Limitations [326 IAC 2-2]

(a) Pursuant to the August 12, 1996 Administrative Amendment to Condition 7 of CP 173-2087-00002, issued on December 9, 1991, and in order to render PSD (Prevention of Significant Deterioration) not applicable, sulfur dioxide emissions from Boilers No. 1, No. 2, No. 3 and No. 4 shall not exceed a total of 157,206 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to a total of 79,074 tons of sulfur input per year, based on:

(1) A 365 consecutive day weighted average sulfur dioxide emission rate in pounds per million British thermal units, with compliance determined at the end of each day, and

(2) Operating a continuous monitoring system for sulfur dioxide in accordance with the requirements 326 IAC 3-5-1.

(b) Pursuant to Condition 8(a) of CP 173-2087-00002, issued on December 9, 1991, SO_2 emissions from Boilers No. 1, No. 2, and No. 3 shall not exceed a total of 249.5 tons per day with compliance determined at the end of each day.

D.1.10 Discontinuation of Natural Gas Co-fire

Pursuant to Condition 17 of CP 173-2087-00002, issued December 9, 1991, Alcoa Power Generating Inc. - Warrick Power Plant may, at their option, discontinue use of the natural gas co-fire for Boilers No. 1, No. 2, and No. 3. Written notification must be submitted to IDEM, OAQ if it is decided that use of the gas co-fire system will be discontinued. Gas igniters on each unit will then be used for startup fuel only. New Source Performance Standards and New Source Review will not be applicable to the removal of these systems.

Compliance Determination Requirements

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) By December 31 of the second calendar year following the most recent stack test, compliance with the CO limitations in Condition D.1.6(a) shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with

Section C - Performance Testing. This condition shall expire upon start-up of the first of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3.

(b) Within 60 after achieving maximum capacity, but no later than 180 days after start-up of each of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3, compliance with the CO limitations in Condition D.1.6 (a) and (b) shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration.

(c) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the H_2SO_4 limitations in Condition D.1.1(b), the Permittee shall conduct a performance stack test for Stack 241-1, 241-2, and 241-3, respectively. This test shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

(d) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM_{10} limitations in Condition D.1.2, the Permittee shall conduct a performance stack test for Stack 241-1, 241-2, and 241-3, respectively. PM_{10} includes filterable and condensable PM_{10}. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration..

Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner.

For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

D.1.12 NO_x Emissions Reduction Verification [326 IAC 2-2.5-1] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) Prior to the start-up of each boiler (Boilers #1, #2, and #3) with low NO_x burners with over fire air, in order to demonstrate compliance with Conditions D.1.8(a)(1) and (b), the Permittee shall calculate the emission rate of NO_x in pounds per million British thermal units from Stacks 241 and 242 based on the most recent valid Relative Accuracy Test Audit (RATA).

(b) Upon start-up of each boiler with low NO_x burners with over fire air, in order to demonstrate compliance with Condition D.1.8(a)(2) and (b), the Permittee shall:

(1) Calculate the emission rate of NO_x in pounds per million British thermal units from Stacks 241 and 242 on an hourly basis for the first ninety (90) days after start-up of the low NO_x burners with over fire air, based on the continuous emissions monitoring system (CEMS) output for each stack, and

(2) Verify that each hourly emission rate of NO_x in pounds per million British thermal units calculated in paragraph (b)(1) of this condition is less than the NO_x emission rate calculated in paragraph (a) of this condition.

D.1.13 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitator shall be operated at all times that Boiler No. 1, No. 2, and No. 3 vented to the respective ESP is in operation.

D.1.14 Operation of Wet Scrubbers [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule in this permit, start-up of the dedicated wet scrubber for Boiler No. 1, the dedicated wet scrubber for Boiler No. 1 shall be in operation and control emissions from Boiler No. 1 at all times that the boiler is in operation.

(b) Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 2, the dedicated wet scrubber for Boiler No. 2 shall be in operation and control emissions from Boiler No. 2 at all times that the boiler is in operation.

(c) Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 3, the dedicated wet scrubber for Boiler No. 3 shall be in operation and control emissions from Boiler No. 3 at all times that the boiler is in operation.

D.1.15 Continuous Emissions Monitoring [326 IAC 3-5]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and Condition 13 of CP 173-2087-00002, issued on December 9, 1991, and as revised by this SPM 173-22581-00002, the Permittee shall comply with the following:

(1) Continuous emission monitoring systems for Boilers No. 1, No. 2, and No. 3 shall be calibrated, maintained, and operated for measuring SO_2, NOx, and O_2 or CO_2.

(2) Upon start-up of each of the dedicated wet scrubbers for Boiler No. 1, No. 2, and No. 3, continuous emissions monitoring systems shall be calibrated, maintained, and operated for measuring SO_2 at the inlet of each scrubber.

(3) Continuous opacity monitoring systems for Boilers No. 1, No. 2, and No. 3 shall be calibrated, maintained, and operated for measuring opacity.

(b) Pursuant to Commissioner's Order #2008-01, in lieu of the requirement to monitor opacity at 326 IAC 3-5-1(c)(2)(A), the Permittee shall comply with the following alternative monitoring plan:

(1) Upon initial re-routing of the electrostatic precipitator exhaust from its existing exhaust stack(s) to its scrubber, it will cease to operate with an associated COMS;

(2) Upon scrubber start-up, its associated PM CEMS will also commence operation;

(3) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, compliance with applicable PM and opacity requirements will be assured through monitoring of particulate removal device operating parameters. The Petitioner shall monitor the ability of the electrostatic precipitator (ESP) and the scrubber to control particulate emissions in accordance with the following:

Electrostatic Precipitator

(A) Conduct daily monitoring of the number of Transformer Rectifier (T-R) sets in operation.

(B) Conduct daily monitoring of the primary and secondary voltages and currents of the T-R sets.

(C) Whenever the percentage of T-R sets in service falls below ninety percent (90%), the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

Scrubber

(D) Continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS.

(i) Compliance with this percent SO_2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average basis.

(E) Whenever the SO_2 reduction fall below ninety percent (90%), the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. SO_2 reduction of less than ninety percent (90%) is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(F) The Petitioner shall conduct daily monitoring of the recirculation slurry flow rate.

(G) Whenever the recirculation slurry flow rate falls below 250 gal./hr. or a value established during the latest stack test, the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. Failure resulting in a recirculation slurry flow rate less than 250 gal./hr is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(4) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, PM

CEMS downtime, except for calibration checks, and zero and span adjustments, shall be less than three percent (3%) of the total quarterly operating hours.

(5) Upon successful demonstration of compliance with PS-11, the monitoring described by Condition D.1.15(b)(3) and the PM CEMS downtime provision described by Condition D.1.15(b)(4) will be discontinued, and thereafter, PM compliance will be demonstrated by the associated PM CEMS;

(6) Upon successful completion of the certification of the PM CEMS, the Petitioner shall submit all required information to the IDEM Office of Air Quality; and

(7) Installation, operation, testing, monitoring, data reporting, data substitution, and other requirements for the PM CEMS shall be determined by NSPS, 40 CFR Part 60, Subpart Db and 326 IAC 3-5 (Continuous Monitoring of Emissions).

(c) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3, and shall meet all applicable performance specifications of 326 IAC 3-5-2.

D.1.16 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-4-10]

Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions from Boilers No. 1, No. 2, and No. 3 do not exceed the limits specified in Conditions D.1.5 and D.1.9 using a thirty (30) day rolling weighted average.

Continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 shall be used as the means for determining compliance with the emission limitations in 326 IAC 7 and Condition D.1.9.

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

D.1.17 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.

(b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.18 Wet Scrubbers [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Upon start-up of each of the dedicated wet scrubbers for Boiler No. 1, No. 2, and No. 3, the Permittee shall comply with the following:

(a) Monitor the scrubber inlet rate of the respective wet scrubber at least once per day when the associate boiler is in operation. When for any one reading, the scrubber inlet rate indicates that the scrubbant flow rate is less than 250 gallons per minute, or a value established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate that is less than the 250 gallons per minute, or a value established during the latest stack test, is not a deviation from this permit. Failure to take response steps in

accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the scrubbant inlet rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(b) The Permittee shall continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS. Whenever the SO_2 reduction fall below ninety percent (90%), or a value established during the latest stack test, the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances. A SO2 emissions reduction of less than ninety percent (90%), or a value established during the latest stack test, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Compliance with this percent SO2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average.

D.1.19 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) In the event of emissions exceeding thirty percent (30%) average opacity for three (3) consecutive six (6) minute averaging periods, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances, such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.

(b) Opacity readings in excess of thirty percent (30%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee may request that the IDEM, OAQ approve a different opacity trigger level than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

D.1.20 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Prior to start-up of the wet scrubbers for Boiler No. 1, Boiler No. 2, and Boiler No. 3, respectively, the following shall apply:

(a) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

(1) If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(2) If the CEMS is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d),

and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

Upon start-up of the wet scrubbers for Boiler No. 1, No. 2, and No. 3, respectively, the following shall apply:

(b) At any time the wet scrubber for Boiler No. 1, No. 2, or No. 3 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

D.1.21 Particulate (PM) Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever a particulate (PM) continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to particulate emissions:

(a) In the event that a breakdown of a PM-CEMS occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.

(b) If a PM-CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(c) Whenever a PM-CEMS is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall comply with the following:

(1) Monitor and record the pH of the scrubbing liquid, scrubber inlet rate, and exhaust air flow rate of the wet scrubber.

(2) Measure and record the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets of the ESP.

(3) Wet scrubber and T-R parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or backup CEMS is brought online.

D.1.22 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the wet scrubbers and the electrostatic precipitators controlling Boilers No, 1, No. 2, and No, 3:

Monitoring Approach for PM10 Emissions from Boilers 1 - 3			
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3
I. Indicator Measurement Approach	PM10 Concentration	[1)] Proper Operation of Scrubbers	Proper Operation of Electrostatic Precipitators (ESP)
	Test methods approved by the Commissioner, Scrubbers, and ESPs	i. Scrubber shall maintain a SO2 reduction as determined by inlet and outlet CEMS outlet data	i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets
II. Indicator Range	an excursion is defined as being outside the following: PM10 emission limit of 0.081 lb/MMBtu	an excursion is defined as being outside the following: i. SO2 reduction shall be at least 90%	an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%
III. Performance Criteria	--	Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75	--
A. Data Representativeness	Test methods as approved by Commissioner	Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75	Subject to Instrument Specifications of Section C of permit
B. Verification of Operational Status	N/A	N/A	N/A
C. QA/QC Practices and Criteria	Periodic inspection and maintenance of Boilers per PMP	Periodic inspection and maintenance of scrubbers per PMP	Periodic inspection and maintenance of ESP per PMP
D. Monitoring Frequency	Once every 2 years.	Continuous	Once per day when operating
IV. Data Collection Proceedure	Test methods as approved by Commissioner	Continuous emissions data acquisition system	Daily observations are recorded in log
Averaging Period	Test methods as approved by Commissioner	Six-minute Averages	N/A

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

D.1.23 Record Keeping Requirements

(a) Until start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, the following shall apply:

(1) To document compliance with Section C - Opacity and Conditions D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating, D.1.4 - Startup, Shutdown and Other Opacity Limits, D.1.15(a) - Continuous Emissions Monitoring, D.1.17(a) - Transformer-Rectifier (T-R) Sets, and D.1.19 - Opacity Readings, the Permittee shall maintain records in accordance with (A) through (D) below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.1.3 - Particulate Emission Limitations and D.1.4. - Startup, Shutdown and Other Opacity Limits.

(A) Data and results from the most recent stack test.

(B) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

(C) The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

(D) All ESP parametric monitoring readings. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(2) To document compliance with SO_2 Conditions D.1.5 - Sulfur Dioxide (SO_2), D.1.9 - Sulfur Dioxide Limitations, D.1.15(a) - Continuous Emissions Monitoring, D.1.16 - Sulfur Dioxide Emissions, and D.1.20 - SO2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (C) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 - Sulfur Dioxide (SO_2) and D.1.9 - Sulfur Dioxide Limitations. The Permittee shall maintain records in accordance with (B) and (C) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All fuel sampling and analysis data collected for SO_2 CEMS downtime, in accordance with Condition D.1.20.

(C) Actual fuel usage during each SO_2 CEMs downtime.

(b) Upon start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, and until receipt of certifications for each of the continuous emission monitoring systems (CEMS) for PM from Stacks 241-1, 241-2, and 241-3, respectively, is received from the IDEM, OAQ, the following shall apply:

(1) To document compliance with PM Conditions D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, D.1.18 - Wet Scrubbers, and D.1.21 - Particulate (PM) Monitoring System Downtime, the Permittee shall maintain records in accordance with (A) through (D) below. The Permittee shall maintain records in accordance with (D) below during PM CEMS downtime if a backup CEMS is not used.

Records shall be complete and sufficient to establish compliance with the limits established in Condition D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(A) All continuous emissions monitoring data for SO_2 emissions reduction, as a twenty-four (24) hour daily (block) average, in accordance with Conditions D.1.15(b)(3)(D) and D.1.18(b).

(B) All ESP parametric monitoring readings, in accordance with Conditions D.1.15(b)(3)(A), (B), and (C), and D.1.17. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(C) All wet scrubber recirculation slurry flow rate readings, in accordance with Conditions D.1.15(b)(3)(F) and (G), and D.1.18(a). The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(D) All ESP and scrubber parametric monitor readings, in accordance with Condition D.1.21(c).

(2) To document compliance with SO_2 Conditions D.1.5 - Sulfur Dioxide (SO_2), D.1.9 - Sulfur Dioxide Limitations, D.1.15(a) - Continuous Emissions Monitoring, D.1.16 - Sulfur Dioxide Emissions, and D.1.20(b) - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 and D.1.9. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.1.20(b).

(c) Upon receipt of certification of each of the continuous emission monitoring systems (CEMS) for PM from Stacks 241-1, 241-2, and 241-3, is received from the IDEM, OAQ, the following shall apply:

(1) To document compliance with PM Conditions D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, and D.1.18 - Wet Scrubbers and D.1.21 - Particulate Matter (PM) Monitoring System Downtime, the Permittee shall maintain records in accordance with (A) through (E) below. The Permittee shall maintain records in accordance with (E) below during PM CEMS downtime if a backup CEMS is not used.

Records shall be complete and sufficient to establish compliance with the limits established in Condition D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(A) All continuous emissions monitoring data for PM, pursuant to 326 IAC 3-5.

(B) All continuous emissions monitoring data for SO_2 emissions reduction, as a twenty-four (24) hour daily (block) average, in accordance with Condition D.1.18(b).

(C) All ESP parametric monitoring readings, in accordance with Condition D.1.17. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(D) All wet scrubber recirculation slurry flow rate readings, in accordance with Condition D.1.18(a). The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(E) All ESP and scrubber parametric monitor readings, in accordance with Condition D.1.21(c).

Upon startup of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), Condition D.1.23(c)(1) shall document compliance with PM and PM10 Conditions D.1.1(a) - PSD Minor Limit PM, D.1.2 - Nonattainment New Source Review (NSR) Minor Limit, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, and D.1.21 - Particulate Matter (PM) Monitoring System Downtime.

Upon startup of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), the records shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.1(a) - PSD Minor Limit PM, D.1.2 - Nonattainment New Source Review (NSR) Minor Limit, and D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(2) To document compliance with SO_2 Conditions D.1.5 - Sulfur Dioxide (SO_2), D.1.9 - Sulfur Dioxide Limitations, D.1.15(a) - Continuous Emissions Monitoring, D.1.16 - Sulfur Dioxide Emissions, D.1.20(b) - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 and D.1.9. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.1.20(b).

(d) To document compliance with NOx Conditions D.1.1(b), D.1.7, D.1.12, and D.1.15, the Permittee shall maintain records of all NOx and CO_2 or O_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NOx limit as required in Conditions D.1.1(b) and D.1.7.

(e) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(f) To document compliance with Condition D.1.22 the Permittee shall maintain records of boiler, scrubber, and ESP inspections. These records shall include at a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM Plan for the boilers, scrubbers, ESPs (if any are required).

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

D.1.24 Reporting Requirements

(a) Until start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, a quarterly report of opacity exceedances and a quarterly summary of the information to document

compliance with Conditions D.1.4, D.1.6, D.1.7, D.1.9, and D.1.15 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

(b) Upon start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, a quarterly summary of the information to document compliance with Conditions D.1.3, D.1.6, D.1.7, D.1.9, and D.1.15 shall be submitted to the address listed in Section C - General Reporting Requirements, if this permit, using the reporting forms located at the end of this permit, or their 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).

(c) Upon start-up of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), a quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, if this permit, using the reporting forms located at the end of this permit, or their 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).

(d) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.1.25 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for Boilers No. 1, No. 2, and No. 3 except as otherwise specified in 40 CFR Part 60, Subpart Db.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

D.1.26 New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units: Requirements [40 CFR Part 60, Subpart Db] [326 IAC 12]

Pursuant to 40 CFR 60.40b, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Db for Boiler 1, Boiler 2, and Boiler 3, as specified as follows:

(1) 40 CFR 60.40b(a)
(2) 40 CFR 60.40b(g)
(3) 40 CFR 60.40b(j)
(4) 40 CFR 60.41b
(5) 40 CFR 60.42b(e)
(6) 40 CFR 60.42b(g)
(7) 40 CFR 60.42b(h)
(8) 40 CFR 60.42b (k)(1)
(9) 40 CFR 60.42b (k)(4)
(10) 40 CFR 60.43b(e)
(11) 40 CFR 60.43b(f)
(12) 40 CFR 60.43b(g)
(13) 40 CFR 60.43b(h)
(14) 40 CFR 60.44b(a)
(15) 40 CFR 60.44b(b
(16) 40 CFR 60.44b(c)
(17) 40 CFR 60.44b(h)
(18) 40 CFR 60.44b(i)
(19) 40 CFR 60.44b(l)
(20) 40 CFR 60.45b(a)
(21) 40 CFR 60.45b(b)
(22) 40 CFR 60.45b (c)(1)
(23) 40 CFR 60.45b (c)(2)
(24) 40 CFR 60.45b (c)(3)
(25) 40 CFR 60.45b (c)(4)
(26) 40 CFR 60.45b (c)(5)
(27) 40 CFR 60.45b(f)
(28) 40 CFR 60.45b(g)
(29) 40 CFR 60.45b(h)
(30) 40 CFR 60.45b(i)
(31) 40 CFR 60.46b(a)
(32) 40 CFR 60.46b(b)
(33) 40 CFR 60.46b(c)

(34) 40 CFR 60.46b (d)(7)
(35) 40 CFR 60.46b (e)(1)
(36) 40 CFR 60.46b (e)(2)
(37) 40 CFR 60.46b (e)(3)
(38) 40 CFR 60.46b(j)
(39) 40 CFR 60.47b(a)
(40) 40 CFR 60.47b(c)
(41) 40 CFR 60.47b(d)
(42) 40 CFR 60.47b(e)
(43) 40 CFR 60.48b(b)
(44) 40 CFR 60.48b(c)
(45) 40 CFR 60.48b(d)
(46) 40 CFR 60.48b(e)
(47) 40 CFR 60.48b(f)
(48) 40 CFR 60.48b (j)(1)
(49) 40 CFR 60.48b(k)
(50) 40 CFR 60.49b(a)
(51) 40 CFR 60.49b(b)
(52) 40 CFR 60.49b(d)
(53) 40 CFR 60.49b(f)
(54) 40 CFR 60.49b(g)
(55) 40 CFR 60.49b (h)(1)
(56) 40 CFR 60.49b (h)(2)
(57) 40 CFR 60.49b (h)(3)
(58) 40 CFR 60.49b(i)
(59) 40 CFR 60.49b(j)
(60) 40 CFR 60.49b(k)
(61) 40 CFR 60.49b(l)
(62) 40 CFR 60.49b(n)
(63) 40 CFR 60.49b(o)
(64) 40 CFR 60.49b(v)
(65) 40 CFR 60.49b(w)

SECTION D.2 FACILITY OPERATION CONDITIONS - One (1) Coal-Fired Boiler (Boiler No.4)

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

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of particulate matter. Boiler No. 4 was configured with a low NO_x burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet limestone slurry absorber scrubber began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from existing stack 243 to new stack 243, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NO_x), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

This unit is not an affected facility under NSPS Da because it did not commence construction, modification, or reconstruction after September 18, 1978, or under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984. The low NO_x burner constructed in 1998 and the SCR system constructed in 2004 do not qualify as modifications as defined by 40 CFR 60, Subpart A. Specifically, the physical change did not result in increased to the atmosphere of any air pollutant (to which a standard applies) or result in any air pollutant not previously emitted.

(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.2.1 PSD Minor Limit PM, NOx, and H_2SO_4 [326 IAC 2-2]

(a) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM emissions from Boiler No. 4 shall not exceed 1425.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.11 lb/MMBtu.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(b) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, NOx emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1) and Boiler No. 4 (Section D.2), combined, shall not exceed 13,720.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NOx limits in Conditions D.1.1(b), D.2.1(b), and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(c) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), the H_2SO_4 emissions from Boiler No. 4 shall be less than 0.0275 lb/MMbtu or a value established during the latest compliant stack test.

Compliance with the H_2SO_4 limits in Conditions D.1.1(c) and D.2.1(c) limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.2.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM10 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall not exceed 4490.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and PM_{10} emissions from Boiler No. 4 shall be less than 0.217 lb/MMBtu. The following equation shall be utilized to determine compliance:

PM10 emissions = [(PM10 E.F. No. 1 x H.E. No. 1) + (PM10 E.F. No. 2 x H.E. No. 2) + (PM10 E.F. No. 3 x H.E. No. 3) + (PM10 E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

PM10 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb PM10/MMBtu heat input to the respective boiler

Note: PM10 E.F. (No. 1, No. 2, and No.3) limitations are contained in Condition D.1.2

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.2.3 Pollution Control Project (PCP) [326 IAC 2-2.5] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(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 decrease in NO_x emissions.

(b) The expected emissions increase of sulfuric acid (H_2SO_4) from this pollution control project is exempted from the 326 IAC 2-2 PSD requirements.

(c) This pollution control project does not revise the existing applicable limitations and requirements already specified in the PSD permit 173-2087-00002, issued on December 9, 1991 for Boiler No. 4.

D.2.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to CP 173-2087-00002, issued on December 9, 1991 and 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions exhausted from Boiler No. 4 through Stack 243 shall not exceed 0.228 pound per million Btu heat input (lb/MMBtu). Upon start-up of the dedicated wet scrubber Boiler No. 4 will exhaust to new stack 243. This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7029 MMBtu/hr (capacity of boilers 1-4)
N = 3 (number of stacks)
a = 0.8
h = 442 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

D.2.5 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:

(a) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed five (5) hours (fifty (50) six (6)-minute averaging periods) from the time of the first exceedance or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator, whichever occurs first. Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(b) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed four and one half (4.5) hours (forty five (45) six (6)-minute averaging periods) after de-energization of the ESP. Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(c) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging period in any sixty (60) minute period. The exceedances shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

(d) If a facility cannot meet the opacity limitations of 326 IAC 5-1-3(b), the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

D.2.6 Sulfur Dioxide (SO_2) [326 IAC 7-4-10]

Pursuant to 326 IAC 7-4-10 (Warrick County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler No. 4 shall not exceed 5.11 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

D.2.7 Sulfur Dioxide Limitations [326 IAC 2-2]

(a) Pursuant to the August 12, 1996 Administrative Amendment to Condition 7 of CP (173)-2087-00002, issued on December 9, 1991, sulfur dioxide emissions from Boilers No. 1, No. 2, No. 3 and No. 4 shall not exceed a total of 157,206 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to a total of 79,074 tons of sulfur input per year, based on:

(1) A 365 consecutive day weighted average sulfur dioxide emission rate in pounds per million British thermal units, with compliance determined at the end of each day, and

(2) Operating a continuous monitoring system for sulfur dioxide in accordance with the requirements 326 IAC 3-5-1.

(b) Pursuant to Condition 8(b) of CP 173-2087-00002, issued on December 9, 1991, SO_2 emissions from Boiler No. 4 shall not exceed 181.2 tons per day with compliance determined at the end of each day.

D.2.8 NO_x Limitation [326 IAC 2-2] [326 IAC 2-2.5-1] [326 IAC 2-1.1-1(13)(A)(iii)]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, NO_x emissions from Boilers No. 1, No. 2, No. 3 and No. 4 shall not exceed a total of 26,080 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

D.2.9 NO_x Reduction [326 IAC 2-2.5-1] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) In order to comply with the requirements of 326 IAC 2-2.5-1, Alcoa Power Generating Inc. - Warrick power plant shall establish the following:

(1) A pounds of NOx per million British thermal unit heat input emission rate prior to installation of the selective catalytic reduction (SCR) for Boiler No. 4, and

(2) A pounds of NOx per million British thermal unit heat input emission rate after the installation of the selective catalytic reduction (SCR) for Boiler No. 4.

(b) The pounds of NOx per million British thermal unit emission rates established by paragraphs (a)(1) and (a)(2) shall show a reduction in NOx emissions from Boiler No. 4 pursuant to 326 IAC 2-2.5-1, and render the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable.

Compliance Determination Requirements

D.2.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) By December 31 of the second calendar year following the most recent stack test, or within 180 days after issuance of this permit, whichever is later, compliance with the PM limitation in Condition D.2.4 shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C -

Performance Testing. This condition shall expire upon start-up of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3, and No. 4.

(b) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM limitations in Condition D.2.1(a), the Permittee shall conduct a performance stack test for Stack 242. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration.

(c) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the H_2SO_4 limitations in Condition D.2.1(c), the Permittee shall conduct a performance stack test for Stack 242. This test shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

(d) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM_{10} limitations in Condition D.2.2, the Permittee shall conduct a performance stack test for Stack 242. PM_{10} includes filterable and condensable PM_{10}. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration.

Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner.

For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

D.2.11 H_2SO_4 Emissions [326 IAC 2-2.5] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, the Permittee shall calculate the H_2SO_4 emissions increase due to the installation and operation of the selective catalytic reduction (SCR) for Boiler No. 4. A one-time submission of manufacturer’s guaranteed conversion rate of SO_2 to SO_3 shall meet the requirements of this condition.

D.2.12 Operation of Electrostatic Precipitator and Wet Scrubber [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitator shall be operated at all times that the Boiler No. 4 vented to the ESP is in operation.

(b) Upon start-up of the dedicated wet scrubber for Boiler No. 4, the dedicated wet scrubber for Boiler No. 4 shall be in operation and control emissions from Boiler No. 4 at all times that the boiler is in operation.

D.2.13 Continuous Emissions Monitoring [326 IAC 3-5]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and Condition 13 of CP 173-2087-00002, issued on December 9, 1991, continuous emission monitoring systems for Boiler No. 4 shall be calibrated, maintained, and operated for measuring opacity, SO_2, NO_x, and O_2 or CO_2, which meet all applicable performance specifications of 326 IAC 3-5-2.

(b) All continuous emissions monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 or 40 CFR 75.

D.2.14 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-4-10]

Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions from Boiler No. 4 do not exceed the equivalents of the limits specified in Conditions D.2.6 and D.2.7 using a thirty (30) day rolling weighted average.

Continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 shall be used as the means for determining compliance with the emission limitations in 326 IAC 7 and Condition D.2.7.

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

D.2.15 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.

(b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.16 Wet Scrubber [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Upon start-up of the dedicated wet scrubber for Boiler No. 4, the Permittee shall comply with the following:

(a) The Permittee shall monitor the pH of the scrubbing liquid, exhaust air stream pressure drop and pump discharge pressure of the dedicated wet scrubber for Boiler No. 4 at least once per day when the respective wet scrubber is in operation.

(b) When for any one reading, the pH of the scrubbing liquid is less than 8.5 or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pH reading that is less than 8.5 or a value established during the latest RATA is not a deviation from this permit.

(c) When for any one reading, the exhaust air stream pressure drop is outside the normal range of 10.0 and 16.0 inches of water or a range established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure drop reading that is outside the normal range or a range established during the latest RATA is not a deviation from this permit.

(d) When for any one reading, the scrubber inlet rate indicates that the scrubbant flow rate is less than 329 gallons per minute or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than 329 gallons per minute or a rate established during the latest RATA is not a deviation from this permit.

Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instruments used for determining the pH, pressure drop and discharge pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.17 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) In the event of emissions exceeding thirty percent (30%) average opacity for three (3) consecutive six (6) minute averaging periods, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances, such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.

(b) Opacity readings in excess of thirty percent (30%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee may request that the IDEM, OAQ approve a different opacity trigger level than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

D.2.18 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Prior to start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(a) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

(1) If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(2) If the CEMS is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

Upon start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(b) At any time the wet scrubber for Boiler No. 4 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in

service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

D.2.19 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the wet scrubber and the electrostatic precipitators controlling Boiler No. 4:

Monitoring Approach for PM Emissions from Boiler 4				
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator Measurement Approach	Particulate Concentration	Opacity	1) Scrubbers Operational Parameter	Electrostatic Precipitators (ESP)
	Methods approved by the Commissioner, Scrubbers, and ESPs	COM	i. scrubber liquid pH ii. exhaust air stream pressure drop iii. scrubbant flow rate	i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets
II. Indicator Range	Particulate emission limit of 0.228 lb/MMBtu	Pursuant to 326 IAC 5-1 - Opacity Limitations, and IAC 5-1-3 - Tempory Opacity Limitations	an excursion is defined as being outside the following: i. < 8.5 pH ii. 12.0 - 18.0 inches of H2O iii. 250 gallons/ minute	an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%
III. Performance Criteria		Pursuant to 40 CFR, Part 75	--	--
A. Data Representativeness	Methods as approved by Commissioner	Pursuant to 326 IAC 3	Subject to Instrument Specifications of Section C of permit	Subject to Instrument Specifications of Section C of permit
B. Verification of Operational Status	N/A	--	N/A	N/A
C. QA/QC Practices and Criteria	Periodic inspection and maintaince of Boilers per PMP	Pursuant to 326 IAC 3	Periodic inspection and maintenance of scrubbers per PMP	Periodic inspection and maintenance of ESP per PMP
D. Monitoring Frequency	Once every 2.5 years.	6 minute average	Once per day when operating	Once per day when operating
IV. Data Collection Proceedure	Methods as approved by Commissioner	Pursuant to 40 CFR, Part 75	Daily observations are recorded in log	Daily observations are recorded in log

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

D.2.20 Record Keeping Requirements

(a) Until start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(1) To document compliance with Section C - Opacity and Conditions D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits, D.2.13 - Continuous Emissions Monitoring, D.2.15 - Transformer-Rectifier (T-R) Sets, and D.2.17- Opacity Readings, the Permittee shall maintain records in accordance with (A) through (D) below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits.

(A) Data and results from the most recent stack test.

(B) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

(C) The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

(D) All ESP parametric monitoring readings. The Permittee shall include in its daily records, when a reading is not taken and the reason for the lack of the reading (e.g. the process did not operate that day).

(2) To document compliance with SO_2 Conditions D.2.6 - Sulfur Dioxide (SO_2), D.2.7 - Sulfur Dioxide Limitations, D.2.13 - Continuous Emissions Monitoring , D.2.14 - Sulfur Dioxide Emissions, and D.2.18 - SO_2 Monitoring System Downtime, the Permittee shall maintain records in accordance with (A) through (C) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.2.6 and D.2.7. The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All fuel sampling and analysis data collected for SO_2 CEMS downtime, in accordance with Condition D.2.18.

(C) Actual fuel usage during each SO_2 CEM downtime.

(b) Upon start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(1) To document compliance with Section C - Opacity and Conditions D.2.1 - PSD Minor Limits, D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits, D.2.13 - Continuous Emissions Monitoring, D.2.15- Transformer-Rectifier (T-R) Sets, D.2.16 - Wet Scrubber, and D.2.17- Opacity Readings, the Permittee shall maintain records in accordance with (A) through (E) below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.1 - PSD Minor Limits, D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits,.

(A) Data and results from the most recent stack test.

(B) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

(C) The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

(D) Daily records of the number of T-R sets in service, the primary and secondary voltages, and the currents of the T-R sets. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(E) All wet scrubber pH, exhaust air stream pressure drop, and pump discharge pressure readings, in accordance with Condition D.2.16. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(2) To document compliance with SO_2 Conditions D.2.6 - Sulfur Dioxide (SO_2), D.2.7 - Sulfur Dioxide Limitations, D.2.13 - Continuous Emissions Monitoring, D.2.14 - Sulfur Dioxide Emissions, D.2.16 - Wet Scrubber, D.2.18 - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.2.6 and D.2.7. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.2.18(b).

(c) To document compliance with NOx Conditions D.2.1(b), D.2.8, and D.2.13, the Permittee shall maintain records of all NOx and CO_2 or O_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NOx limit as required in Conditions D.2.1(b) and D.2.6.

(d) To document compliance with Conditions D.2.1(c) and D.2.11, the Permittee shall keep records that verify the emissions rates of H_2SO_4 from Boiler No. 4. These shall be made available upon request to IDEM, OAQ and the US EPA.

(e) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(f) To document compliance with Condition D.2.19 the Permittee shall maintain records of boiler, scrubber, and ESP inspections. These records shall include at a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM Plan for the boilers, scrubbers, ESPs (if any are required).

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

D.2.21 Reporting Requirements

(a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.3, D.2.4, D.2.5, D.2.6, and D.2.11 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

(b) Upon start-up of the wet scrubber for Boiler No. 4, a quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.1, D.2.2, D.2.3, D.2.4, D.2.5, D.2.6, and D.2.11 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

(c) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

SECTION D.3 FACILITY OPERATION CONDITIONS - One (1) Oil/gas-fired boiler (Emergency Rolling Mill Boiler)

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

(e) One (1) gas-fired boiler, identified as Emergency Rolling Mill Boiler, constructed in 1979, with a nominal heat input capacity of 79 million Btu per hour (MMBtu/hr) and exhausting to stack 242.

This unit is not an affected facility under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984.

(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.3.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the Emergency Rolling Mill Boiler stack shall not exceed 0.227 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7108 MMBtu/hr (capacity of boilers)
N = 3 (number of stacks)
a = 0.8
h = 442 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

SECTION D.4 FACILITY OPERATION CONDITIONS - Coal and Limestone Storage and Handling

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

(f) One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2008 in order to accommodate the transfer of limestone.

(g) A coal transfer system, constructed prior to 1974, with a nominal throughput of 1,300 tons of coal per hour, consisting of the following equipment:

(1) One (1) unloading station for trucks, adjacent to the 211 railcar dumper, with a drop point to an underground conveyor, with the drop point, identified as DP-1, equipped with wet suppression, and exhausting to the ambient air.

(2) The 211 rail car dumper, with an enclosed drop point to an underground conveyor, with the drop point, identified as DP-3, equipped with wet suppression and exhausting to the ambient air.

(3) One (1) 9.0 acre coal storage pile, having an estimated storage capacity of 300,000 tons, with fugitive emissions controlled by periodic watering by truck, and exhausting to the ambient air.

(4) The 210H truck hopper, with a drop point a coal storage pile identified as F-1, with the drop point equipped with wet suppression and exhausting to the ambient air.

(5) Multiple loading stations for trucks, with drop points to a coal storage pile, identified as F-1, uncontrolled and exhausting to the ambient air.

(6) Enclosed conveyor (4), with a drop point to the F-1 coal pile stacking tower, uncontrolled and exhausting to the ambient air.

(7) Enclosed conveyors 5 and 5A with each transfer point enclosed.

(8) Four (4) coal bunkers. Bunkers are loaded via a conveyor tripper system servicing Boilers No. 1, No. 2, No. 3 and No. 4. Particulate matter generated from loading bunkers is controlled by rotoclones and exhausts to the ambient air.

(9) One (1) enclosed coal crusher, constructed in 1960, with each transfer point equipped with wet suppression, and exhausting to the ambient air.

(10) Two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor, permitted in 2001, but not yet constructed, uncontrolled and exhausting to the ambient air.

(continued on next page)

(continued from prior page)

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of tons, with fugitive emissions controlled by periodic watering by truck.

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) One (1) enclosed pipe conveyor, transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7 tons, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) gravity discharge chutes, all emissions control by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) gravity discharge chutes, the transfer point is enclosed and emissions are controlled by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, and 247.

(i) One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through silo vent 283C.

(j) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2008, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere.

(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.4.1 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Unloading Station (when handling coal)	1,300	81
Coal storage, handling drop points, crushers, and bunkers	1,300	81
Unloading Station (when handling limestone)	40	42.53
Limestone storage and handling drop points	40	42.53
Limestone wet ball mills	19.7	30.20
Gypsum dewatering	72	48

These limits are determined by the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

When the process weight rate exceeds two hundred (200) tons per hour, the maximum allowable emission may exceed E pounds per hour, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

D.4.2 PM Limit [326 IAC 2-2]

(a) Pursuant to Minor Source Modification 173-14884-00002 issued on November 1, 2001, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the PM emissions from the two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor shall be limited to 5.71 pounds per hour. Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(b) In order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the following conditions shall apply:

(1) The PM emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	Unloading Station for Barges Baghouse (244)	9.43
Limestone Day Silos No. 1, No. 2, and No. 3, and associated weight scales and conveyance drop points.	Limestone Day Silos Bin Vent Filters (245), (246), (247)	0.96
Flyash Storage Silo	Bin Vent Filter (283C)	0.26
Gypsum Dewatering System and Slurry Conveyor	Vent (248)	1.89

Compliance with these limits, in conjunction with the PM fugitive emissions from the associated road travel and storage piles, ensures the PM emissions from the limestone transfer, handling, and storage, shall not exceed 422.71 tons per year.

(2) The coal throughput to the coal transfer station shall not exceed 3,707,969 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, ensures limits the PM emissions from the coal transfer station, including PM fugitive emissions from the associated road travel, shall not exceed 450.0 tons per year.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.4.3 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

(a) Pursuant to Minor Source Modification 173-14884-00002 issued on November 1, 2001, and in order to render Nonattainment New Source Review (NSR) not applicable, the PM_{10} emissions from the two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor shall be limited to 3.42 pounds per hour. Compliance with these limits, shall render the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)) not applicable.

(b) In order to render 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)) not applicable, the following conditions shall apply:

(1) The PM_{10} emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM_{10} Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	Hopper Baghouse (244)	9.43
Limestone Day Silos No. 1, No. 2, and No. 3, and associated weight scales and conveyance	Limestone Day Silos Bin Vent Filters (245), (246), (247)	0.96

Process Description	Unit Description (Stack/Vent)	PM_{10} Emission Limit (lbs/hr)
drop points.		
Flyash Storage Silo	Bin Vent Filter (283C)	0.26
Gypsum Dewatering System and Slurry Conveyor	Vent (248)	1.89

Compliance with these limits, in conjunction with the PM_{10} fugitive emissions from the associated road travel and storage piles, ensures the PM_{10} emissions from the limestone transfer, handling, and storage, shall not exceed 139.6 tons per year.

(2) The coal throughput to the coal transfer station shall not exceed 3,707,969 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, ensures limits the PM10 emissions from the coal transfer station, including fugitive emissions from the associated road travel, shall not exceed 340.0 tons per year.

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

Compliance Determination Requirements

D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 60 after achieving maximum capacity, but no later than 180 days after start-up of the coal and limestone unloading operations, in order to demonstrate compliance with the PM and PM_{10} limitations in Conditions D.4.1 and D.4.2, the Permittee shall conduct PM and PM_{10} performance testing for stack 244. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

D.4.5 Particulate Control [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule or in this permit, the watering system for the coal storage and limestone storage piles shall be in operation and control emissions as needed when coal is being unloaded.

(b) Except as otherwise provided by statute or rule or in this permit, the dust collectors for particulate control shall be in operation and control emissions at all times the associated coal processing or conveyors are in operation.

(c) Except as otherwise provided by stature or rule or in this permit, the bin vent filters and the hopper baghouse for particulate control shall be in operation and control emissions at all times the associated limestone weighing, storage or conveyors are in operation.

(d) Except as otherwise provided by stature or rule or in this permit, the bin vent filters for particulate control shall be in operation and control emissions at all times the associated flyash is being loaded into the flyash silo.

(e) Except as otherwise provided by statute or rule or in this permit, the rotoclones for particulate control shall be in operation and control emissions at all times the associated coal bunkers are in operation.

(f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.4.6 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the coal and limestone unloading station baghouse exhaust, coal and limestone drop points, coal and limestone transfer point exhausts, and coal crusher shall be performed once per day during normal daylight operations. A trained employee shall record whether any emissions are observed.

(b) Visible emission notations of the coal bunkers, coal scale, the limestone day silos bin vent exhausts (245, 246, 247), and the flyash storage silo bin vent exhaust (283C) shall be performed once per week during normal daylight operations. A trained employee shall record whether any emissions are observed.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed from the coal unloading station drop points, coal transfer station exhausts, coal crusher, coal bunker, or coal scale, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Visible emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.4.7 Particulate Control [326 IAC 2-7-6(6)]

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.8 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the coal and limestone unloading station, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the bin vent filters used in conjunction with each of the three (3) limestone day silos exhaust vents (245, 246, 247) at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, (and local agency if applicable) and shall be calibrated at least once every six (6) months.

D.4.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.4.10 Record Keeping Requirements

(a) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.6, the Permittee shall maintain daily records of the visible emission notations of the coal and limestone unloading station baghouse exhaust, coal and limestone drop points, coal and limestone transfer point exhausts, and the coal crusher. The Permittee shall include in its daily record when a visible emission notation is not

taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.6, the Permittee shall maintain weekly records of the visible emission notations of the coal bunkers, coal scale , limestone day silos bin vent exhausts (245, 246, 247), and flyash storage silo bin vent exhaust (283C).

(c) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.8, the Permittee shall maintain daily records of the pressure drop across the coal and limestone unloading hopper baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) To document compliance with Conditions D.4.2(b)(2) and D.4.3(b)(2), the Permittee shall maintain records of the coal usage.

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

SECTION D.5 FACILITY OPERATION CONDITIONS - Diesel Engines

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

(k) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2008, each with a rated capacity of 500 horsepower, located at the Y-pit for the purpose of removing rainwater. Under 40 CFR 60, Subpart IIII, Y-pit Pump1 and Y-pit Pump2 are considered to be stationary internal combustion engines.

(m) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2008, rated at 465 horsepower, using no controls. Under 40 CFR 60, Subpart IIII, the diesel emergency firewater pump engine is considered to be stationary internal combustion engine.

(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.5.1 Prevention of Significant Deterioration (PSD) Minor Limit for NO_x [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The NO_x emissions from Y-pit Pump1 and Y-pit Pump2 shall not exceed 15.5 pounds per hour, each.

(b) Y-pit Pump1 and Y-pit Pump2 shall be limited to 10,000 hours of operation, combined, per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NO_x limits in Conditions D.1.7 and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

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

D.5.2 Record Keeping Requirements

(a) The Permittee shall maintain records of the hours of operation of Y-pit Pump1 and Y-pit Pump2.

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

D.5.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.5.3 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for Y-pit Pump1, Y-pit Pump2, and for the diesel emergency firewater pump engine 249 except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

D.5.4 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which are incorporated by reference as 326 IAC 12, for Y-pit Pump1, Y-pit Pump2, and for the diesel emergency firewater pump engine 249 as follows:

(1) 40 CFR 60.4200(a)
(2) 40 CFR 60.4200(d)
(3) 40 CFR 60.4201(a)
(4) 40 CFR 60.4201(d)
(5) 40 CFR 60.4202(a)
(6) 40 CFR 60.4202(d)
(7) 40 CFR 60.4204(a)
(8) 40 CFR 60.4204(b)
(9) 40 CFR 60.4205(a)
(10) 40 CFR 60.4205(b)
(11) 40 CFR 60.4205(c)
(12) 40 CFR 60.4206
(13) 40 CFR 60.4207(a)
(14) 40 CFR 60.4207(b)
(15) 40 CFR 60.4207(c)
(16) 40 CFR 60.4208
(17) 40 CFR 60.4209
(18) 40 CFR 60.4210(a)
(19) 40 CFR 60.4210(b)
(20) 40 CFR 60.4210(c)
(21) 40 CFR 60.4210(d)
(22) 40 CFR 60.4210(e)
(23) 40 CFR 60.4210(f)

(24) 40 CFR 60.4210(g)
(25) 40 CFR 60.4210(i)
(26) 40 CFR 60.4211(a)
(27) 40 CFR 60.4211(b)
(28) 40 CFR 60.4211(c)
(29) 40 CFR 60.4211(e)
(30) 40 CFR 60.4214
(31) 40 CFR 60.4218
(32) CFR 60.4219

Table 1 to Subpart IIII of Part 60
Table 2 to Subpart IIII of Part 60
Table 3 to Subpart IIII of Part 60
Table 4 to Subpart IIII of Part 60
Table 5 to Subpart IIII of Part 60
Table 8 to Subpart IIII of Part 60

SECTION D.6 FACILITY OPERATION CONDITIONS - Diesel Engines

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

(l) Two (2) rental diesel units that shall not exceed 775 hp each, permitted in 2008, identified as Engine1 and Engine2. Pursuant to 40 CFR 60.1068, the rental diesel units are considered nonroad engines. Therefore, under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, the engines are not affected units.

Note: These rental diesel units will be installed on an as-needed basis.

(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.6.1 Rental Units [326 IAC 2-7-10.5] [326 IAC 2-7-12]

The Permittee may remove and replace these rental units (Engine1 and Engine2) with another rental diesel unit at any time without prior approval under 326 IAC 2-7-10.5 and 326 IAC 2-7-12. Subject to the following conditions:

(a) only two (2) rental units may be installed and operated under this approval (SSM 173-22006-00002 and SPM 173-22581-00002);

(b) the rental units shall not exceed 775 hp each; and

(c) the rental units shall be diesel-fired only.

D.6.2 Prevention of Significant Deterioration (PSD) Minor Limit for NO_x [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following :

(a) The NO_x emissions from any rental unit with a rated output capacity equal to or less than six hundred (600) horsepower (hp) shall not exceed 0.60 lb of NO_x per gallon of diesel fuel combusted.

(b) The NO_x emissions from any rental unit with a rated output capacity greater than six hundred (600) horsepower (hp) shall not exceed 0.43 lb of NO_x per gallon of diesel fuel combusted.

(c) The total NO_x emissions from the two (2) rental units (Engine1 and Engine2) shall be less than forty (40.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

NO_x Emissions (tons per month) = (A x 0.60 + B x 0.43) / 2000

Where:

A = Diesel fuel usage (gallons) used by units with a rated capacity less than or equal to six hundred (600) horsepower (hp)

B = Diesel fuel usage (gallons) used by units with a rated capacity greater than six hundred (600) horsepower (hp)

Compliance with the above limit shall limit the NO_x from the rental units to less than forty (40) tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the installation of the rental units.

D.6.3 Nonroad Engines [326 IAC 12] [40 CFR 60, Subpart IIII]

In order to render the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII), which are incorporated by reference as 326 IAC 12, and to ensure the rental units (Engine1 and Engine2) are nonroad engines, as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), the Permittee shall comply with the following:

(a) A rental unit shall remain onsite for a period not to exceed twelve (12) consecutive months.

(b) Any rental unit that replaces a rental unit and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

Compliance with these limits shall render the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII), which are incorporated by reference as 326 IAC 12, not applicable.

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

D.6.4 Record Keeping Requirements

(a) The Permittee shall maintain records of the dates of installation and removal of units Engine1 and Engine2 as each unit is installed and removed.

(b) The Permittee shall maintain records of the make, and horsepower of each rental diesel unit brought onto the site.

(c) The Permittee shall maintain records of the fuel type and usage of units Engine1 and Engine2.

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

D.6.5 Reporting Requirements

The Permittee shall report a quarterly summary of the information to document compliance with Condition D.6.2 to the addresses listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, 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).

SECTION D.7 FACILITY OPERATION CONDITIONS - Insignificant Activities

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

The following insignificant activities:

(a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(b) Flyash handling facility and transport systems, wet flyash sluiced and conveyed to one (1) ash pond, with a combined surface area of 61.2 acres.

(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.7.1 Organic Solvent Degreasing Operations: Cold Cleaner Operation [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.7.2 Organic Solvent Degreasing Operations: Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control) for a cold cleaner degreaser facility, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for a cold cleaning facility, the Permittee shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION E TITLE IV ACID RAIN PROGRAM CONDITIONS

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

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241. Boiler No. 1 was configured with a low NO_x burner, and over-fire air in 2003. Boiler No. 1 vents to stack 241 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 1 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241 and stack 242. Boiler No. 2 was configured with a low NO_x burner, and over-fire air in 2004. Boiler No. 2 vents to stacks 241 and 242. Both stacks have continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 2 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 242. Boiler No. 3 was configured with a low NO_x burner, and over-fire air in 2002. Boiler No. 3 vents to stack 242 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 3 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with a nominal heat input capacity of 2,958 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 243. Boiler No. 4 was configured with a low NO_x burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 vents to stack 243 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

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

Acid Rain Program

E.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix A, and is incorporated by reference.

E.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

(a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.

(b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

(c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

SECTION F Nitrogen Oxides Budget Trading Program - NOx Budget Permit for NOx Budget Units Under 326 IAC 10-4-1(a)

ORIS Code: 6705

NOx Budget Source [326 IAC 2-7-5(15)]

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241. Boiler No. 1 was configured with a low NO_x burner, and over-fire air in 2003. Boiler No. 1 vents to stack 241 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 1 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241 and stack 242. Boiler No. 2 was configured with a low NO_x burner, and over-fire air in 2004. Boiler No. 2 vents to stacks 241 and 242. Both stacks have continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 2 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 242. Boiler No. 3 was configured with a low NO_x burner, and over-fire air in 2002. Boiler No. 3 vents to stack 242 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 3 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with a nominal heat input capacity of 2,958 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 243. Boiler No. 4 was configured with a low NO_x burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 vents to stack 243 which has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and carbon dioxide (CO_2) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

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

F.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]

This NO_x budget permit is deemed to incorporate automatically the definitions of terms under 326 IAC 10-4-2.

F.2 Standard Permit Requirements [326 IAC 10-4-4(a)]

(a) The owners and operators of the NO_x budget source and each NO_x budget unit shall operate each unit in compliance with this NO_x budget permit.

(b) The NO_x budget units subject to this NO_x budget permit are Boiler No. 1, Boiler No. 2, Boiler No. 3, and Boiler No. 4.

F.3 Monitoring Requirements [326 IAC 10-4-4(b)]

(a) The owners and operators and, to the extent applicable, the NO_x authorized account representative of the NO_x budget source and each NO_x budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12.

(b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NO_x budget emissions limitation under 326 IAC 10-4-4(c) and Condition F.4, Nitrogen Oxides Requirements.

F.4 Nitrogen Oxides Requirements [326 IAC 10-4-4(c)]

(a) The owners and operators of the NO_x budget source and each NO_x budget unit at the source shall hold NO_x allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO_x allowance transfer deadline, in each unit's compliance account and the source's overdraft account in an amount:

(1) Not less than the total NO_x emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;

(2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or

(3) To account for withdrawal from the NO_x budget trading program, or a change in regulatory status of a NO_x budget opt in unit.

(b) Each ton of NO_x emitted in excess of the NO_x budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.

(c) Each NO_x budget unit shall be subject to the requirements under (a) above and 326 IAC 10-4-4(c)(1) starting on May 31, 2004.

(d) NO_x allowances shall be held in, deducted from, or transferred among NO_x allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.

(e) A NO_x allowance shall not be deducted, in order to comply with the requirements under (a) above and 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NO_x allowance was allocated.

(f) A NO_x allowance allocated under the NO_x budget trading program is a limited authorization to emit one (1) ton of NO_x in accordance with the NO_x budget trading program. No provision of the NO_x budget trading program, the NO_x budget permit application, the NO_x budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.

(g) A NO_x allowance allocated under the NO_x budget trading program does not constitute a property right.

(h) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO_x allowance to or from each NO_x budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, this NOx budget permit of the NOx budget unit by operation of law without any further review.

F.5 Excess Emissions Requirements [326 IAC 10-4-4(d)]

The owners and operators of each NOx budget unit that has excess emissions in any ozone control period shall do the following:

(a) Surrender the NOx allowances required for deduction under 326 IAC 10-4-10(k)(5).

(b) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).

F.6 Record Keeping Requirements [326 IAC 10-4-4(e)] [326 IAC 2-7-5(3)]

Unless otherwise provided, the owners and operators of the NOx budget source and each NOx budget unit at the source shall keep, either on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years:

(a) The account certificate of representation for the NOx authorized account representative for the source and each NOx budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NOx authorized account representative.

(b) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide for a three (3) year period for record keeping, the three (3) year period shall apply.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx budget trading program.

(d) Copies of all documents used to complete a NOx budget permit application and any other submission under the NOx budget trading program or to demonstrate compliance with the requirements of the NOx budget trading program.

This period may be extended for cause, at any time prior to the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to IDEM, OAQ or U.S. EPA within three (3) business days following receipt of a written request. Nothing in 326 IAC 10-4-4(e) shall alter the record retention requirements for a source under 40 CFR 75. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

F.7 Reporting Requirements [326 IAC 10-4-4(e)]

(a) The NOx authorized account representative of the NOx budget source and each NOx budget unit at the source shall submit the reports and compliance certifications required under the NOx budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.

(b) Pursuant to 326 IAC 10-4-4(e) and 326 IAC 10-4-6(e)(1), each submission shall include the following certification statement by the NOx authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NOx budget sources or NOx budget 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."

(c) Where 326 IAC 10-4 requires a submission to IDEM, OAQ, the NOx authorized account representative shall submit required information to:

Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(d) Where 326 IAC 10-4 requires a submission to U.S. EPA, the NOx authorized account representative shall submit required information to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code 6204N
Washington, DC 20460

F.8 Liability [326 IAC 10-4-4(f)]

The owners and operators of each NOx budget source shall be liable as follows:

(a) Any person who knowingly violates any requirement or prohibition of the NOx budget trading program, a NOx budget permit, or an exemption under 326 IAC 10-4-3 shall be subject to enforcement pursuant to applicable state or federal law.

(b) Any person who knowingly makes a false material statement in any record, submission, or report under the NOx budget trading program shall be subject to criminal enforcement pursuant to the applicable state or federal law.

(c) No permit revision shall excuse any violation of the requirements of the NOx budget trading program that occurs prior to the date that the revision takes effect.

(d) Each NOx budget source and each NOx budget unit shall meet the requirements of the NOx budget trading program.

(e) Any provision of the NOx budget trading program that applies to a NOx budget source, including a provision applicable to the NOx authorized account representative of a NOx budget source, shall also apply to the owners and operators of the source and of the NOx budget units at the source.

(f) Any provision of the NOx budget trading program that applies to a NOx budget unit, including a provision applicable to the NOx authorized account representative of a NOx budget unit, shall also apply to the owners and operators of the unit. Except with regard to the requirements applicable to units with a common stack under 40 CFR 75 and 326 IAC 10-4-12, the owners and operators and the NOx authorized account representative of one (1) NOx budget unit shall not be liable for any violation by any other NOx budget unit of which they are not owners or operators or the NOx authorized account representative and that is located at a source of which they are not owners or operators or the NOx authorized account representative.

F.9 Effect on Other Authorities [326 IAC 10-4-4(g)]

No provision of the NOx budget trading program, a NOx budget permit application, a NOx budget permit, or an exemption under 326 IAC 10-4-3 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NOx authorized account representative of a NOx budget source or NOx budget unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the CAA.

SECTION G.1 FACILITY OPERATION CONDITIONS - Standards of Performance for Stationary Nonmetallic Mineral Processing Plants

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

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) One (1) enclosed pipe conveyor, transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7 tons, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) gravity discharge chutes, all emissions control by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) gravity discharge chutes, the transfer point is enclosed and emissions are controlled by the limestone day silos' bin vent filters, and exhausting to vents 245, 246, and 247.

Under 40 CFR 60, Subpart OOO, the one (1) limestone hopper, one (1) pipe conveyor, three (3) limestone day silos, three (3) weigh scales, three (3) gravity discharge chutes, and three (3) wet ball mill crushers are considered affected units.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

G.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for limestone material handling equipment except as otherwise specified in 40 CFR Part 60, Subpart OOO.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

G.1.2 Standards of Performance for Stationary Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart 000, the Permittee shall comply with the provisions of Standards of Performance for Stationary Nonmetallic Mineral Processing Plants, which are incorporated by reference as 326 IAC 12, for the limestone material handling equipment as follows:

(1) 40 CFR 60.670(a)
(2) 40 CFR 60.670(d)
(3) 40 CFR 60.670(e)
(4) 40 CFR 60.670(f)
(5) Table 1 to 40 CFR 60, Subpart OOO
(6) 40 CFR 60.671
(7) 40 CFR 60.672
(8) 40 CFR 60.673(b)
(9) 40 CFR 60.675(a)
(10) 40 CFR 60.675(b)
(11) 40 CFR 60.675(c)
(12) 40 CFR 60.675(d)
(13) 40 CFR 60.675(e)
(14) 40 CFR 60.675(f)
(15) 40 CFR 60.675(g)
(16) 40 CFR 60.675 (h)(1)
(17) 40 CFR 60.676(a)
(18) 40 CFR 60.676(f)
(19) 40 CFR 60.676(g)
(20) 40 CFR 60.676(h)
(21) 40 CFR 60.676 (i)(1)
(22) 40 CFR 60.676(j)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002

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

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ 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:
Telephone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address:	4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address:	Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.:	T173-6630-00002

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe: Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

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 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive. 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. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does 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".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ 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:	

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:

Phone:

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No. 1, No. 2, and No. 3.
Parameter: PM Emissions
Limit: Shall be less than 1060.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boiler No. 4
Parameter: PM Emissions
Limit: Shall be less than 1425.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No. 1, No. 2, No. 3, and No. 4
Parameter: NOx Emissions
Limit: Shall be less than 13,7200.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

H_2SO_4 Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No., 1, No. 2, No. 3, and No. 4
Parameter: H_2SO_4 Emissions
Limit: Shall be less than 667.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	H_2SO_4 (tons)	H_2SO_4 (tons)	H_2SO_4 (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No., 1, No. 2, No. 3, and No. 4
Parameter: PM_{10} Emissions
Limit: Shall be less than 4490.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM_{10} (tons)	PM_{10} (tons)	PM_{10} (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

Hours of Operation Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Y-pit Pump1 and Y-pit Pump2
Parameter: Hours of Operation
Limit: Shall be less than 10,000 hours, combined, per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	Hours of Operation (tons)	Hours of Operation (tons)	Hours of Operation (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Rental Units (Engine1 and Engine2)
Parameter: NOx Emissions
Limit: Shall be less than forty (40) tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204

Toll Free (800) 451-6027
www.idem.IN.gov

PHASE II
and OPT-IN
ACID RAIN PERMIT RENEWAL
OFFICE OF AIR QUALITY

Warrick Power Plant, Alcoa Power Generating Inc.
4700 Darlington Road
Newburgh, IN 47629
ORIS: 6705

The owners and operators (hereinafter collectively known as the Permittee) of the above source are issued this permit under the provisions of 326 Indiana Administrative Code (IAC) 21 with conditions listed on the attached pages.

Operation Permit No.: AR 173-19650-00002	
Issued by: Original Signed by: Paul Dubenetzky, Chief Permits Branch	Issuance Date: December 28, 2004 Expiration Date: December 31, 2009
First Administrative Amendment: AAR 173-20771-00002	Page Affected: 4
Issued by: Original Signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: September 30, 2005 Expiration Date: December 31, 2009

Title IV Operating Conditions

Title IV Source Description:

(a) One (1) dry bottom, pulverized coal wall-fired boiler, identified as Boiler No. 1, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241. Boiler No. 1 has a continuous opacity monitor (COM). Boiler No. 1 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(b) One (1) dry bottom, pulverized coal wall-fired boiler, identified as Boiler No. 2, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241 and stack 242. Boiler No. 2 has a continuous opacity monitor (COM). Boiler No. 2 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(c) One (1) dry bottom, pulverized coal wall-fired boiler, identified as Boiler No. 3, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 242. Boiler No. 3 has a continuous opacity monitor (COM). Boiler No. 3 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

(d) One (1) dry bottom, pulverized coal cell burner boiler, identified as Boiler No. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 2,958 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 243. Boiler No. 4 was configured with a low N_{OX} burner in 1998. Boiler No. 4 has a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.

Boilers 1, 2, and 3 are owned and operated by Alcoa Power Generating, Inc. and are Opt-In units.
Boiler 4 is co-owned by Alcoa Power Generating, Inc. and Vectren and operated by Alcoa Power Generating, Inc.

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

1. Statutory and Regulatory Authorities

In accordance with IC 13-17-3-4, IC 13-17-3-11, IC 13-17-8-1 and IC 13-17-8-2 as well as Titles IV and V of the Clean Air Act, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) issues this permit pursuant to 326 IAC 2 and 326 IAC 21 (incorporates by reference 40 Code of Federal Regulations (CFR) 72 through 78).

2. Standard Permit Requirements [326 IAC 21]

(a) The designated representative has submitted a complete acid rain permit application and opt-in information, in accordance with the deadlines in 40 CFR 72.30 and 40 CFR 74.

(b) Alcoa Power Generating, Inc., and Vectren, shall operate Boilers 1, 2, 3, and 4 in compliance with this permit.

3. Monitoring Requirements [326 IAC 21]

(a) Alcoa Power Generating, Inc., Vectren, and the designated representative of Opt-In Boilers 1, 2, and 3 and Boiler 4 shall comply with the monitoring requirements as provided in 40 CFR 74, 75, and 76.

(b) The emissions measurements recorded and reported in accordance with 40 CFR 74, 75, and 76 shall be used to determine compliance by Boilers 1, 2, 3 and 4, for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(c) The requirements of 40 CFR 74, 75, and 76 shall not affect the responsibility of Alcoa Power Generating, Inc., and Vectren to monitor emissions of other pollutants or other emissions characteristics at Opt-In Boilers 1, 2, and 3 and Boiler 4 under other applicable requirements of the Clean Air Act and other provisions of the operating permit for the source.

4. Sulfur Dioxide Requirements [326 IAC 21]

(a) Alcoa Power Generating, Inc. and Vectren shall:

(1) Hold allowances, as of the allowance transfer deadline (as defined in 40 CFR 72.2), in the compliance sub account for Opt-In Boilers 1, 2, and 3 and Boiler 4 (after deductions under 40 CFR 73.34), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and,

(2) Comply with the applicable acid rain emissions limitations for sulfur dioxide.

(b) Each ton of sulfur dioxide emitted in excess of the acid rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Clean Air Act.

(c) Opt-In Boilers 1, 2, and 3, shall be subject to the requirements under paragraph 4(a) of the sulfur dioxide requirements upon the effective date of this permit.

(d) Boiler 4 shall be subject to the requirements under paragraph 4(a) of the sulfur dioxide requirements as follows:

(1) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or,

(2) Starting on the latter of January 1, 2000, or the deadline for monitor certification under 40 CFR 75, an affected unit under 40 CFR 72.6(a)(3).

(e) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(f) An allowance shall not be deducted in order to comply with the requirements under paragraph 4(a)(1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(g) An allowance allocated by the U.S. EPA under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the acid rain permit application, the acid rain permit, the acid rain portion of an operating permit, or the written exemption under 40 CFR 72.7 and 72.8 and 326 IAC 21, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(h) An allowance allocated by U.S. EPA under the Acid Rain Program does not constitute a property right.

(i) No permit revision may be required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program, provided that the increases do not require a permit revision under any other applicable requirement. [326 IAC 2-7-5(4)(A)]

(j) No limit shall be placed on the number of allowances held by Alcoa Power Generating, Inc., and Vectren. Alcoa Power Generating, Inc., and Vectren may not, however, use

allowances as a defense to noncompliance with any applicable requirement other than the requirements of the Acid Rain Program. [326 IAC 2-7-5(4)(B)]

(k) Sulfur dioxide allowances shall be allocated as follows:

Opt-in SO_2 Allowance Allocations under 40 CFR 74.26 for Boiler 1					
year	2005	2006	2007	2008	2009
Tons	30,372+	30,372+	30,372+	30,372+	30,372+

Opt-in SO_2 Allowance Allocations under 40 CFR 74.26 for Boiler 2					
year	2005	2006	2007	2008	2009
Tons	30,732+	30,732+	30,732+	30,732+	30,732+

Opt-in SO_2 Allowance Allocations under 40 CFR 74.26 for Boiler 3					
year	2005	2006	2007	2008	2009
Tons	27,668+	27,668+	27,668+	27,668+	27,668+

SO_2 Allowance Allocations for Boiler 4					
year	2005	2006	2007	2008	2009
Tons	10,506*	10,506*	10,506*	10,506*	10,506*

+ Boilers 1, 2, and 3 are Opt-In units pursuant to 326 IAC 21 and 40 CFR 74.

* The number of allowances allocated to Boiler 4 by U.S. EPA may change in a revision to 40 CFR 73 Tables 2, 3 and 4 and 326 IAC 21. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the SO_2 allowance allocations identified in this permit. (See 40 CFR 72.84)

5. Nitrogen Oxides Requirements [326 IAC 21]

(a) Alcoa Power Generating, Inc., and Vectren, shall comply with the applicable acid rain emissions limitation for nitrogen oxides (NOx) for Boiler 4.

(b) Pursuant to 40 CFR 76, the Indiana Department of Environmental Management, Office of Air Quality approves a NOX standard emission limitation for Boiler 4. The compliance plan is effective for calendar year 2005 through calendar year 2009. Under the compliance plan, Boiler 4's annual average NOX emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR.76.6(a)(1), of 0.68 lb/mmBtu for cell burner Boiler 4.

(c) Pursuant to 40 CFR 74.12(c) Opt-in Boilers 1, 2, and 3, are exempt from the Nitrogen Oxides requirements.

6. Excess Emissions Requirements [40 CFR 77] [326 IAC 21]

(a) The designated representative of Boilers 1, 2, 3, and 4, if any boiler has excess emissions of sulfur dioxide in any calendar year, shall submit a proposed offset plan to U.S. EPA and IDEM, OAQ as required under 40 CFR 77 and 326 IAC 21.

(b) The designated representative shall submit required information to:

Indiana Department of Environmental Management
Air Compliance Section I, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

And

Ms. Cecilia Mijares
Air and Radiation Division
U.S. Environmental Protection Agency, Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

And

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code (6204N)
Washington, DC 20460

(c) Alcoa Power Generating, Inc., if Opt-In Boilers 1, 2, or 3, has excess emissions, as defined in 40 CFR 72.2, in any calendar year shall:

(1) Pay to U.S. EPA without demand the penalty required, and pay to U.S. EPA upon demand the interest on that penalty, as required by 40 CFR 77 and 326 IAC 21; and,

(2) Comply with the terms of an approved sulfur dioxide offset plan, as required by 40 CFR 77 and 326 IAC 21.

(d) Alcoa Power Generating Inc. and Vectren, if Boiler 4 has excess emissions, as defined in 40 CFR 72.2, in any calendar year shall:

(1) Pay to U.S. EPA without demand the penalty required, and pay to U.S. EPA upon demand the interest on that penalty, as required by 40 CFR 77 and 326 IAC 21; and,

(2) Comply with the terms of an approved sulfur dioxide offset plan, as required by 40 CFR 77 and 326 IAC 21.

7. Record Keeping and Reporting Requirements [326 IAC 21]

(a) Unless otherwise provided, Alcoa Power Generating, Inc., for Boilers 1, 2, 3, and 4, and Vectren, for Boiler 4, shall keep on site each of the following documents for a period of 5 years, as required by 40 CFR 72.9(f), from the date the document is created. This period may be extended for cause, at any time prior to the end of the 5 years, in writing by U.S. EPA or IDEM, OAQ:

(1) The certificate of representation for the designated representative for Boilers 1, 2, 3, and 4 and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; 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 changing the designated representative;

(2) All emissions monitoring information collected in accordance with 40 CFR 75 shall be retained on site for 3 years;

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

(4) Copies of all documents used to complete an acid rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(b) The designated representative of Boilers 1, 2, 3, and 4 shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72.90 subpart I, 40 CFR 75, and 326 IAC 21. Submit required information to the appropriate authority(ies) as specified in 40 CFR 72.90 subpart I and 40 CFR 75.

8. Submissions [326 IAC 21]

(a) The designated representative shall submit a certificate of representation, and any superseding certificate of representation, to U.S. EPA and IDEM, OAQ in accordance with 40 CFR 72 and 326 IAC 21.

(b) The designated representative shall submit required information to:

Indiana Department of Environmental Management
Permit Administration Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code (6204N)
Washington, DC 20460

(c) Each such submission under the Acid Rain Program shall be submitted, signed and certified by the designated representative for all sources on behalf of which the submission is made.

(d) In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature, the following statements which shall be included verbatim in the submission:

(1) “I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made.”; and,

(2) “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.”

(e) The designated representative of Boilers 1, 2, 3 and 4 shall notify Alcoa Power Generating, Inc., for Boilers 1, 2, 3, and 4, and Vectren, for Boiler 4:

(1) By the date of submission, of any Acid Rain Program submissions by the designated representative;

(2) Within 10 business days of receipt of any written determination by U.S. EPA or IDEM, OAQ; and,

(3) Provided that the submission or determination covers Boiler 1, 2, 3, or 4.

(f) The designated representative of Boiler 1, 2, 3, and 4 shall provide Alcoa Generating Power, Inc., for Boilers 1, 2, 3, and 4, and Vectren, for Boiler 4, a copy of any submission or determination under condition (e) of this section, unless Alcoa Generating Power, Inc., or Vectren expressly waives the right to receive a copy.

9. Severability [326 IAC 21]

Invalidation of the acid rain portion of an operating permit does not affect the continuing validity of the rest of the operating permit, nor shall invalidation of any other portion of the operating permit affect the continuing validity of the acid rain portion of the permit. [40 CFR 72.72(b), 326 IAC 21, and 326 IAC 2-7-5(5)]

10. Liability [326 IAC 21]

(a) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement by U.S. EPA pursuant to Section 113(c) of the Clean Air Act and shall be subject to enforcement by IDEM pursuant to 326 IAC 21 and IC 13-30-3.

(b) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Clean Air Act, 18 U.S.C. 1001 and IDEM pursuant to 326 IAC 21 and IC 13-30-6-2.

(c) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(d) Boilers 1, 2, 3 and 4 shall meet the requirements of the Acid Rain Program.

(e) Any provision of the Acid Rain Program that applies to Boilers 1, 2, 3 or 4, including a provision applicable to the designated representative of Boilers 1, 2, 3, or 4, shall also apply to Alcoa Power Generating, Inc. for Boilers 1, 2, 3, or 4 and Vectren for Boiler 4.

(f) Any provision of the Acid Rain Program that applies to Boilers 1, 2, 3 or 4, including a provision applicable to the designated representative of Boilers 1, 2, 3 or 4, shall also apply to Alcoa Power Generating, Inc. for Boilers 1, 2, 3, or 4 and Vectren for Boiler 4. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NOx averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 75, including 40 CFR 75.16, 75.17, and 75.18, Alcoa Power Generating, Inc., and Vectren and the designated representative of Boilers 1, 2, 3 or 4 shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(g) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by Boilers 1, 2, 3, or 4, or by Alcoa Power Generating, Inc. for Boilers 1, 2, 3, or 4 and Vectren for Boiler 4 or the designated representative of Boilers 1, 2, 3, or 4, shall be a separate violation of the Clean Air Act.

11. Effect on Other Authorities [326 IAC 21]

No provision of the Acid Rain Program, an acid rain permit application, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(a) Except as expressly provided in Title IV of the Clean Air Act (42 USC 7651 to 7651(o)), exempting or excluding Alcoa Power Generating, Inc., for Boilers 1, 2, 3, and 4 and Vectren for Boiler 4, and to the extent applicable, the designated representative of Boilers 1, 2, 3 or 4, from compliance with any other provision of the Clean Air Act, including the provisions of Title I of the Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(b) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Clean Air Act;

(c) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

(d) Modifying the Federal Power Act (16 USC 791(a) et seq.) or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(e) Interfering with or impairing any program for competitive bidding for power supply in a state in which such a program is established.

Indiana Department of Environmental Management
Office of Air Quality

Attachment B

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32742, June 13, 2007, unless otherwise noted.

§ 60.40b Applicability and delegation of authority.

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO_X) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO_X standards under this subpart and to the sulfur dioxide (SO_2) standards under subpart D (§60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO_X standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO_X standards under this subpart and the PM and SO_2 standards under subpart D (§60.42 and §60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the PM and NO_X standards under this subpart and the SO_2 standards under subpart J (§60.104).

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the NO_X and PM standards under this subpart.

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing total reduced sulfur (TRS) as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.

(g) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, the following authorities shall be retained by the Administrator and not transferred to a State.

(1) Section 60.44b(f).

(2) Section 60.44b(g).

(3) Section 60.49b(a)(4).

(h) Any affected facility that meets the applicability requirements and is subject to subpart Ea, subpart Eb, or subpart AAAA of this part is not covered by this subpart.

(i) Heat recovery steam generators that are associated with combined cycle gas turbines and that meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

(k) Any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart.

§ 60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO_2) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

Chemical manufacturing plants mean industrial plants that are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis.

Cogeneration , also known as combined heat and power, means a facility that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

Coke oven gas means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke.

Combined cycle system means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a steam generating unit.

Conventional technology means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Full capacity means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

Gaseous fuel means any fuel that is present as a gas at ISO conditions.

Gross output means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output (i.e., steam delivered to an industrial process).

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

Heat release rate means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

Heat transfer medium means any material that is used to transfer heat from one point to another point.

High heat release rate means a heat release rate greater than 730,000 J/sec-m^3 (70,000 Btu/hr-ft^3).

ISO Conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Low heat release rate means a heat release rate of 730,000 J/sec-m^3 (70,000 Btu/hr-ft^3) or less.

Mass-feed stoker steam generating unit means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

Maximum heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

Municipal-type solid waste means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

Natural gas means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

Petroleum refinery means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Pulp and paper mills means industrial plants that are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Spreader stoker steam generating unit means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Very low sulfur oil means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005, *very low sulfur oil* means an oil that contains no more than 0.3 weight percent sulfur or that, when combusted without SO_2emission control, has a SO_2emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO_2control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42b Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), (d), or (k) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction) and the emission limit determined according to the following formula:

$$E_s = \frac{(K_a H_a + K_b H_b)}{(H_a + H_b)}$$

Where:

E_s= SO_2emission limit, in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (or 1.2 lb/MMBtu);

K_b= 340 ng/J (or 0.80 lb/MMBtu);

H_a= Heat input from the combustion of coal, in J (MMBtu); and

H_b= Heat input from the combustion of oil, in J (MMBtu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO_2emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of SO_2emissions, shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 50 percent of the potential SO_2emission rate (50 percent reduction) and that contain SO_2in excess of the emission limit determined according to the following formula:

$$E_s = \frac{(K_c H_c + K_d H_d)}{(H_c + H_d)}$$

Where:

E_s= SO_2emission limit, in ng/J or lb/MM Btu heat input;

K_c= 260 ng/J (or 0.60 lb/MMBtu);

K_d= 170 ng/J (or 0.40 lb/MMBtu);

H_c= Heat input from the combustion of coal, in J (MMBtu); and

H_d= Heat input from the combustion of oil, in J (MMBtu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain SO_2in excess

of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section.

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

(2) Affected facilities located in a noncontinental area; or

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

(4) The affected facility burns coke oven gas alone or in combination with natural gas or very low sulfur distillate oil.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

(g) Except as provided in paragraph (i) of this section and §60.45b(a), the SO_2emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential SO_2emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO_2emissions and

(2) Emissions from the pretreated fuel (without combustion or post-combustion SO_2control) are equal to or less than the emission limits specified in paragraph (c) of this section.

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO_2control system is not being operated because of malfunction or maintenance of the SO_2control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO_2emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO_2emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

(2) Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO_2emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO_2emissions limit in paragraph 60.42b(k)(1).

(3) Units that are located in a noncontinental area and that combust coal or oil shall not discharge any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

§ 60.43b Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 that combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input, (i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(3) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal or coal and other fuels and

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less,

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.

(4) An affected facility burning coke oven gas alone or in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) for reducing PM or SO_2emissions is not subject to the PM limits under §60.43b(a).

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO_2emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts wood, or

wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.

(2) 86 ng/J (0.20 lb/MMBtu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood;

(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood; and

(iii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input;

(i) If the affected facility combusts only municipal-type solid waste; or

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less;

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less;

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for municipal-type solid waste, or municipal-type solid waste and other fuels; and

(iv) Construction of the affected facility commenced after June 19, 1984, but on or before November 25, 1986.

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum heat input capacity.

(f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(g) The PM and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

(h)(1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), and (h)(5) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input,

(2) As an alternative to meeting the requirements of paragraph (h)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.3 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO_2or PM emissions is not subject to the PM limits under §60.43b(h)(1).

§ 60.44b Standard for nitrogen oxides (NOX).

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X(expressed as NO_2) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO_2) heat input	
	ng/J	lb/MMBTu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		
(i) Mass-feed stoker	210	0.50
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X in excess of a limit determined by the use of the following formula:

$$E_n = \frac{(EL_{go}H_{go}) + (EL_{ro}H_{ro}) + (EL_cH_c)}{(H_{go} + H_{ro} + H_c)}$$

Where:

E_n= NO_X emission limit (expressed as NO_2), ng/J (lb/MMBtu);

EL_{go}= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H_{go}= Heat input from combustion of natural gas or distillate oil, J (MMBtu);

EL_{ro}= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBtu);

H_{ro}= Heat input from combustion of residual oil, J (MMBtu);

EL_c= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H_c= Heat input from combustion of coal, J (MMBtu).

(c) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO_X in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO_X in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = \frac{(EL_{go}H_{go}) + (EL_{ro}H_{ro}) + (EL_cH_c)}{(H_{go} + H_{ro} + H_c)}$$

Where:

E_n= NO_X emission limit (expressed as NO_2), ng/J (lb/MMBtu);

EL_{go}= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H_{go}= Heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, J (MMBtu);

EL_{ro}= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil and/or byproduct/waste, ng/J (lb/MMBtu);

H_{ro}= Heat input from combustion of residual oil, J (MMBtu);

EL_c= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H_c= Heat input from combustion of coal, J (MMBtu).

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a NO_X emission limit that shall apply specifically to that affected facility when the byproduct/waste is

combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as NO_X emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific NO_X emission limit under this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, by conducting a 30-day performance test as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this section.

(2) The NO_X emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific NO_X emission limit will be established at the NO_X emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing NO_X emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_X limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the NO_X emission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO_X emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the NO_X emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the NO_X emission limits of this section. The NO_X emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).) In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_X limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(h) For purposes of paragraph (i) of this section, the NO_X standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NO_X emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following limits:

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input on a 30-day rolling average from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = \frac{(0.10 \times H_{go}) + (0.20 \times H_r)}{(H_{go} + H_r)}$$

Where:

E_n= NO_X emission limit, (lb/MMBtu);

H_{go}= 30-day heat input from combustion of natural gas or distillate oil; and

H_r= 30-day heat input from combustion of any other fuel.

(3) After February 27, 2006, units where more than 10 percent of total annual output is electrical or mechanical may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of §60.48Da(i) of subpart Da of this part, and must monitor emissions according to §60.49Da(c), (k), through (n) of subpart Da of this part.

§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

(a) The SO_2emission standards under §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil and complying with the fuel based limit under

§60.42b(d) or §60.42b(k)(2) are allowed to exceed the limit 30 operating days per calendar year for by-product plant maintenance.

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO_2emission rate (% P_s) and the SO_2emission rate (E_s) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.

(1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO_2standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

(2) If only coal, only oil, or a mixture of coal and oil is combusted, the following procedures are used:

(i) The procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS) of §60.47b (a) or (b).

(ii) The percent of potential SO_2emission rate (%P_s) emitted to the atmosphere is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

%P_s= Potential SO_2emission rate, percent;

%R_g= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

%R_f= SO_2removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:

(i) An adjusted hourly SO_2emission rate (E_{ho}^{o}) is used in Equation 19–19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate (E_{ao}^{o}). The Eho° is computed using the following formula:

$$E_{ho}^{o} = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

E_{ho}^{o} = Adjusted hourly SO_2emission rate, ng/J (lb/MMBtu);

E_{ho}= Hourly SO_2emission rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted; and

X_k= Fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(ii) To compute the percent of potential SO_2emission rate ($\%P_s$), an adjusted $\%R_g$($\%R_g^o$) is computed from the adjusted E_{ao}^o from paragraph (b)(3)(i) of this section and an adjusted average SO_2inlet rate (E_{ai}^o) using the following formula:

$$\%R_g^o = 100\left(1.0 - \frac{E_{ao}^o}{E_{ai}^o}\right)$$

To compute E_{ai}^o , an adjusted hourly SO_2inlet rate (E_{hi}^o) is used. The E_{hi}^o is computed using the following formula:

$$E_{hi}^o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E_{hi}^o = Adjusted hourly SO_2inlet rate, ng/J (lb/MMBtu); and

E_{hi}= Hourly SO_2inlet rate, ng/J (lb/MMBtu).

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters $E_w$or $X_k$if the owner or operator elects to assume that X_k= 1.0. Owners or operators of affected facilities who assume X_k= 1.0 shall:

(i) Determine $\%P_s$following the procedures in paragraph (c)(2) of this section; and

(ii) Sulfur dioxide emissions (E_s) are considered to be in compliance with SO_2emission limits under §60.42b.

(5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters $E_w$or $X_k$under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure SO_2emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(d) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a CEMS is used, or based on a daily average if Method 6B of appendix A of this part or fuel sampling and analysis procedures under Method 19 of appendix A of this part are used.

(e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

(f) For the initial performance test required under §60.8, compliance with the SO_2emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for $SO_2$for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under §60.8, compliance with the SO_2emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for $SO_2$for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for $SO_2$are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO_2emissions data in calculating $\%P_s$and E_{ho}under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid SO_2emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating $\%P_s$and E_{ho}pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO_2control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate $\%P_s$or $E_s$under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

(k) The owner or operator of an affected facility seeking to demonstrate compliance under §§60.42b(d)(4), 60.42b(j), and 60.42b(k)(2) shall follow the applicable procedures under §60.49b(r).

§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO_X emission standards under §60.44b apply at all times.

(b) Compliance with the PM emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section, except as provided in paragraph (i) of this section.

(c) Compliance with the NO_X emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

(d) To determine compliance with the PM emission limits and opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods:

(1) Method 3B of appendix A of this part is used for gas analysis when applying Method 5 or 17 of appendix A of this part.

(2) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

(ii) Method 17 of appendix A of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (32 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(3) Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(4) For Method 5 of appendix A of this part, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14 °C (320±25 °F).

(5) For determination of PM emissions, the oxygen (O_2) or CO_2sample is obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(6) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rate expressed in ng/J heat input is determined using:

(i) The O_2or CO_2measurements and PM measurements obtained under this section;

(ii) The dry basis F factor; and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(7) Method 9 of appendix A of this part is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for NO_X required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NO_X under §60.48(b).

(1) For the initial compliance test, NO_X from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_X emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal

or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO_X emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO_X standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_X standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

(5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.

(f) To determine compliance with the emissions limits for NO_X required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

(1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:

(i) The emissions rate (E) of NO_X shall be computed using Equation 1 in this section:

$$E = E_{sg} + \left(\frac{H_g}{H_b}\right)\left(E_{sg} - E_g\right) \qquad \text{(Eq.1)}$$

Where:

E = Emissions rate of NO_X from the duct burner, ng/J (lb/MMBtu) heat input;

E_{sg}= Combined effluent emissions rate, in ng/J (lb/MMBtu) heat input using appropriate F factor as described in Method 19 of appendix A of this part;

H_g= Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H_b= Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E_g= Emissions rate from the combustion turbine, in ng/J (lb/MMBtu) heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part.

(ii) Method 7E of appendix A of this part shall be used to determine the NO_X concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O_2 concentration.

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

(iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under §60.48b for measuring NO_X and O_2 and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO_X emissions rate at the outlet from the steam generating unit shall constitute the NO_X emissions rate from the duct burner of the combined cycle system.

(g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 MMBtu/hr) shall:

(1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NO_X emission standards under §60.44b using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NO_X emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods.

(i) The owner or operator of an affected facility seeking to demonstrate compliance under paragraph §60.43b(h)(5) shall follow the applicable procedures under §60.49b(r).

(j) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5, 5B, or 17 of appendix A of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(13) of this section.

(1) Notify the Administrator one month before starting use of the system.

(2) Notify the Administrator one month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (j) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraphs (j)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (j)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (j)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (j)(7)(i) of this section.

(i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.

(ii) For O_2(or CO_2), EPA reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours per 30-day rolling average.

§ 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b), (f), and (h) of this section, the owner or operator of an affected facility subject to the SO_2 standards under §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the SO_2 and either O_2 or CO_2 concentrations shall both be monitored at the inlet and outlet of the SO_2 control device. If the owner or operator has installed and certified SO_2 and O_2 or CO_2 CEMS according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:

(1) When relative accuracy testing is conducted, SO_2 concentration data and CO_2(or O_2) data are collected simultaneously; and

(2) In addition to meeting the applicable SO_2 and CO_2(or O_2) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and

(3) The reporting requirements of §60.49b are met. SO_2 and CO_2 (or O_2) data used to meet the requirements of §60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO_2 data have been bias adjusted according to the procedures of part 75 of this chapter.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate, or

(2) Measuring SO_2 according to Method 6B of appendix A of this part at the inlet or outlet to the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 or 3B of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

(3) A daily SO_2 emission rate, E_D, shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A–8) and stated in ng/J (lb/MMBtu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/MMBtu) for 30 successive steam generating unit operating days using equation 19–20 of Method 19 of appendix A of this part.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average SO_2 emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under §60.42(b). Each 1-hour average SO_2 emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) Except as provided for in paragraph (e)(4) of this section, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Except as provided for in paragraph (e)(4) of this section, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the SO_2 CEMS at the inlet to the SO_2 control device is 125 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO_2 control device is 50 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted. Alternatively, SO_2 span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.

(4) As an alternative to meeting the requirements of requirements of paragraphs (e)(1) and (e)(2) of this section, the owner or operator may elect to implement the following alternative data accuracy assessment procedures:

(i) For all required CO_2 and O_2 monitors and for SO_2 and NO_X monitors with span values less than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO_2 and NO_X span values less than 100 ppm;

(ii) For all required CO_2 and O_2 monitors and for SO_2 and NO_X monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO_2 and NO_X span values less than or equal to 30 ppm; and

(iii) For SO_2, CO_2, and O_2 monitoring systems and for NO_X emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this

chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO_2 (regardless of the SO_2 emission level during the RATA), and for NO_X when the average NO_X emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

(f) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under paragraph (a) of this section if the owner or operator maintains fuel records as described in §60.49b(r).

§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.

(a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_X standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NO_X emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average NO_X emission rates measured by the continuous NO_X monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2).

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO_X is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO_X span values shall be determined as follows:

Fuel	Span values for NO_X (ppm)
Natural gas	500.
Oil	500.
Coal	1,000.
Mixtures	500 (x + y) + 1,000z.

Where:

x = Fraction of total heat input derived from natural gas;

y = Fraction of total heat input derived from oil; and

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NO_X span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

(3) All span values computed under paragraph (e)(2)(i) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (e)(2)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.

(f) When NO_X emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or

(2) Monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to §60.49b(c).

(h) The owner or operator of a duct burner, as described in §60.41b, that is subject to the NO_X standards of §60.44b(a)(4) or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO_X emissions.

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a CEMS for measuring NO_X emissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), or (5) of this section is not required to install or operate a COMS for measuring opacity if:

(1) The affected facility uses a PM CEMS to monitor PM emissions; or

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO_2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to

reduce SO_2 or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO_2 or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.

(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.

(D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(ii) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(iii) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(iv) You must record the CO measurements and calculations performed according to paragraph (j)(4) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(5) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

§ 60.49b Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility;

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired; and

(4) Notification that an emerging technology will be used for controlling emissions of SO_2. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42b(a) unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2, PM, and/or NO_X emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the NO_X standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_X emission rates (*i.e.* , ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.* , the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.* , flue gas O_2 level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO_X emission rates and these operating conditions; and

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data

generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(e) For an affected facility that combusts residual oil and meets the criteria under §§60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D4629 (incorporated by reference, see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO_X standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(7) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period.

(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

(2) Any affected facility that is subject to the NO_X standard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less; or

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_X emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_X emission rate, as determined under §60.46b(e), that exceeds the applicable emission limits in §60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO_X under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the SO_2 standards under §60.42b shall submit reports.

(k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period;

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Each 30-day average percent reduction in SO_2 emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;

(6) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(7) Identification of times when hourly averages have been obtained based on manual sampling methods;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part; and

(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

(l) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates when the facility was in operation during the reporting period;

(2) The 24-hour average SO_2 emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which $S0_2$ or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken;

(4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;

(5) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(6) Identification of times when hourly averages have been obtained based on manual sampling methods;

(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(8) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of appendix F 1 of this part. If the owner or operator elects to implement the alternative data assessment procedures described in §§60.47b(e)(4)(i) through (e)(4)(iii), each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by §§60.47b(e)(4)(i) through (e)(4)(iii).

(m) For each affected facility subject to the SO_2 standards under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

(1) The number of hourly averages available for outlet emission rates and inlet emission rates;

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of appendix A of this part, section 7;

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of appendix A of this part, section 7; and

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of appendix A of this part, section 7.

(n) If a percent removal efficiency by fuel pretreatment (*i.e.* , $\%R_f$) is used to determine the overall percent reduction (*i.e.* , $\%R_o$) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment (*i.e.* , $\%R_f$) was credited during the reporting period;

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period;

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit; and

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 of appendix A of this part and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The number of hours of operation; and

(3) A record of the hourly steam load.

(q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:

(1) The annual capacity factor over the previous 12 months;

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and

(3) If the affected facility meets the criteria described in §60.44b(j), the results of any NO_X emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_X emission test.

(r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in §60.42b or §60.43b shall either:

(1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) or §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition and/or pipeline quality natural gas was combusted in the affected facility during the reporting period; or

(2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate

compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

(i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

(ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

(iii) The ratio of different fuels in the mixture; and

(iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

(s) Facility specific NO_X standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

(1) *Definitions* .

Oxidation zone is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

Reducing zone is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in §60.44b(a) applies.

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

(3) *Emission monitoring* . (i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.

(ii) The NO_X emission limit shall be determined by the compliance and performance test methods and procedures for NO_X in §60.46b(i).

(iii) The monitoring of the NO_X emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner of operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

(t) Facility-specific NO_X standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

(1) *Definitions* .

Air ratio control damper is defined as the part of the low NO_X burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

Flue gas recirculation line is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides* . (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The NO_X emission limit shall be determined by the compliance and performance test methods and procedures for NO_X in §60.46b.

(iii) The monitoring of the NO_X emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner of operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia* . (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”) and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low NO_X technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO_X emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO_2 and/or NO_X and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and

shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

(x) Facility-specific NO_X standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_X emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides* . (i) The NO_X emissions shall be determined by the compliance and performance test methods and procedures for NO_X in §60.46b.

(ii) The monitoring of the NO_X emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements* . (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(y) Facility-specific NO_X standard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for* NO_X. (i) When fossil fuel alone is combusted, the NO_X emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO_X emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for* NO_X. (i) The NO_X emissions shall be determined by the compliance and performance test methods and procedures for NO_X in §60.46b.

(ii) The monitoring of the NO_X emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements* . (i) The owner or operator of the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

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Subpart DB--STANDARDS OF PERFORMANCE FOR INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS

Indiana Department of Environmental Management
Office of Air Quality

Attachment C

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO_X) emissions by 90 percent or more, or limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE

with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO_Xemissions by 90 percent or more, or limit the emissions of NO_Xin the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and $NO_X$and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit $NO_X$and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

C_i= concentration of NO_Xor PM at the control device inlet,

C_o= concentration of NO_Xor PM at the control device outlet, and

R = percent reduction of NO_Xor PM emissions.

(2) You must normalize the NO_Xor PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \qquad \text{(Eq. 3)}$$

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

$\%O_2$= Measured O_2concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent $O_2$and CO_2concentration is measured in lieu of O_2concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \qquad \text{(Eq. 4)}$$

Where:

F_o= Fuel factor based on the ratio of O_2volume to the ultimate CO_2volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

F_d= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

F_c= Ratio of the volume of CO_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

X_{CO2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and PM gas concentrations adjusted to 15 percent O_2using CO_2as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

C_{adj}= Calculated NO_Xor PM concentration adjusted to 15 percent O_2.

C_d= Measured concentration of NO_Xor PM, uncorrected.

$\%CO_2$= Measured CO_2concentration, dry basis, percent.

(e) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_X concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in §60.4204(c).

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart IIII, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts

resulting from implementation of 40 CFR part 60, subpart IIII. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under §60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of §60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4202 or §60.4203 using such fuels.

(b) [Reserved]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_X+ NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

[As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+[2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[3]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

[1]For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2]For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3]In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO_Xemissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for NO_Xconcentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_Xconcentration.
		iv. Measure NO_Xat the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO_Xin the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurement for NO_Xconcentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_Xconcentration.
		iv. Measure NO_Xat the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO_Xconcentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

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Subpart IIII--STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Indiana Department of Environmental Management
Office of Air Quality

Attachment D

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 51 FR 31337, Aug. 1, 1985, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b) [Reserved]

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

This document was downloaded from the following source on January 9, 2008:

Subpart OOO--STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Significant Source Modification and
Significant Permit Modification to a Part 70 Operating Permit

Source Name:	Alcoa Power Generating, Inc. - Warrick Power Plant (Alcoa Warrick Power Plant)
Source Location:	4700 Darlington Road, Newburgh, Indiana 47630
County:	Warrick
SIC Code:	4931
Significant Source Modification No.:	173-22006-00002
Significant Permit Modification No.:	173-22581-00002
Permit Reviewer:	Jenny Acker

Public Notice Information

On March 13, 2008, the Office of Air Quality (OAQ) had a notice published in the Boonville Standard, Boonville, Indiana, stating that Alcoa Power Generating, Inc. - Warrick Power Plant (Alcoa Warrick Power Plant) had applied for a significant modification to its Part 70 Operating Permit No. T173-6630-00002. The notice also stated that OAQ proposed to issue permits for this modification and provided information on how the public could review the proposed permits and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not these permits should be issued as proposed.

Comments from Alcoa Power Generating, Inc. (APGI)

On April 3, 2008, Samuel Bruntz, Staff Environmental Engineer, Alcoa Power Generating, Inc. (APGI), submitted comments on the proposed significant modification to the Part 70 permit. The summary of the comments and revisions to the permit (**bolded** language has been added, the ~~strikethrough~~ language has been deleted) is as follows:

APGI Comment 1:

The dedicated wet scrubbers are limestone slurry absorbers. They are not equipped with lime injection. APGI thus requests, that wherever the phrase "wet scrubbers with lime injection" appears, the phrase be amended to "wet limestone slurry absorber scrubber(s)".

IDEM Response 1:

Throughout the permits the descriptions of the four (4) scrubbers, proposed as part of this modification, have been amended, as requested.

APGI Comment 2:

APGI has found it necessary to re-number the exhaust stack to which the Unit 4 scrubber will exhaust. Accordingly, APGI requests that the following change be made where appropriate:

Upon start-up of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from **existing** stack 243 to **new** stack ~~242~~ **243**.

IDEM Response 2:

Throughout the permits, the stack exhaust configuration of the Unit 4 scrubber has been amended as requested. Additionally, references to "stack 242" have been amended to "new stack 243".

APGI Comment 3:

APGI notes that a 1.42 acre stockpile can hold 22,000 tons, rather than 40 tons. Since potential emissions from the stockpile were calculated based on the acreage of the pile rather than a quantity of limestone that comprised the stockpile, this change will not affect emissions calculations and is descriptive only. Accordingly, APGI requests that the following change be made where applicable:

"One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of ~~40~~ **22,000** tons, with fugitive emissions controlled by periodic watering by truck."

IDEM Response 3:

IDEM, OAQ agrees that the requested change does not affect the emissions calculations nor does the requested change affect existing permit conditions or require new permit conditions. Therefore, throughout the permits the description of the limestone storage pile has been amended as requested.

APGI Comment 4:

There will only be one (1) pipe conveyor transferring limestone to the three (3) day silos (Diverter gate at the exit of the pipe conveyor will divert limestone to one of the selected day silos.) APGI requests the following change be made where applicable:

One (1) ~~Three~~ enclosed pipe conveyor~~s~~, ~~each~~ transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silo bin vent filters.

IDEM Response 4:

The requested change does not affect the emissions calculations nor does the requested change affect existing permit conditions or require new permit conditions. Therefore, throughout the permits the requested change has been made. Additionally, references to three (3) enclosed pipe conveyors have been amended to refer to one (1) enclosed pipe conveyor.

APGI Comment 5:

The weigh scales beneath the day silos transfer limestone to the wet ball mill crushers by gravity discharge chute, rather than by a pipe conveyor. Accordingly, APGI requests the following changes be made where applicable:

Three (3) weigh scales, each with a maximum capacity of 19.7 **tons**, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) **gravity discharge chutes** ~~pipe conveyors~~, all emissions controlled by the limestone **day silos'** bin vent filters, and exhausting to vents 245, 246, and 247.

Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) **gravity discharge chutes** ~~pipe conveyors~~, the transfer point**s are** ~~is~~ enclosed and emissions are controlled by the limestone day silos**'** bin vent filters, and exhausting to vents 245, 246, and 247.

IDEM Response 5:

The requested changes do not affect the emissions calculations nor do the requested changes affect existing permit conditions or require new permit conditions. Therefore, throughout the permits the requested changes have been made. Additionally, references to the pipe conveyors have been amended to refer to gravity discharge chutes.

APGI Comment 6:

APGI has determined that it is necessary to re-number the exhaust stack to which the dry flyash storage silo bin vent will exhaust. Accordingly, APGI requests the following change be made where applicable:

One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through ~~stack 243~~ **silo vent 283C**.

IDEM Response 6:

The requested change does not affect the emissions calculations nor does the requested change effect existing permit conditions or require new permit conditions. Therefore, throughout the permits the requested change has been made and all references to stack 243 in association with the dry flyash storage silo have been amended to refer to silo vent 283C.

APGI Comment 7:

APGI believes that the “rental diesel generators” or “rental diesel-fuel fired pumps” language that appears in the below reference was intended by IDEM to provide APGI some flexibility for operation of rental units it must occasionally procure to provide dredging services, and operation of other temporary pieces of equipment. To clarify, APGI suggests that, wherever the phrase “rental diesel generators…” or “rental diesel-fuel fired pumps” appears, the phrase be amended as follows:

Two (2) rental diesel ~~generators~~ **units** that shall not exceed 775 hp each, ~~approved for construction~~ **permitted** in 2008, identified as Engine1 and Engine2. Pursuant to 40 CFR 60.1068, the rental diesel generators are considered nonroad engines. Therefore, under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, the engines are not affected units.

IDEM Response 7:

IDEM, OAQ agrees to the change. Throughout the permits the requested change has been made.

APGI Comment 8:

APGI believes that Condition G.1.2 (23), (24), and (25) are typographical errors, since they appear to be a repeat of Conditions G.1.2 (1), (2), (3), and (4). In the event APGI is correct in this belief, it then requests that IDEM delete Conditions G.1.2 (23), (24), and (25).

IDEM Response 8:

IDEM, OAQ agrees that Conditions G.1.2 (23), (24), and (25) are typographical errors. Condition G.1.2 has been amended as follows:

G.1.2 Standards of Performance for Stationary Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart 000, the Permittee shall comply with the provisions of

Standards of Performance for Stationary Nonmetallic Mineral Processing Plants, which are incorporated by reference as 326 IAC 12, for the limestone material handling equipment as follows:

(1) 40 CFR 60.670(a)
(2) 40 CFR 60.670(d)
(3) 40 CFR 60.670(e)
(4) 40 CFR 60.670(f)
(5) Table 1 to 40 CFR 60, Subpart OOO
(6) 40 CFR 60.671
(7) 40 CFR 60.672
(8) 40 CFR 60.673(b)
(9) 40 CFR 60.675(a)
(10) 40 CFR 60.675(b)
(11) 40 CFR 60.675(c)
(12) 40 CFR 60.675(d)
(13) 40 CFR 60.675(e)
(14) 40 CFR 60.675(f)
(15) 40 CFR 60.675(g)
(16) 40 CFR 60.675 (h)(1)
(17) 40 CFR 60.676(a)
(18) 40 CFR 60.676(f)
(19) 40 CFR 60.676(g)
(20) 40 CFR 60.676(h)
(21) 40 CFR 60.676 (i)(1)
(22) 40 CFR 60.676(j)
~~(23) 40 CFR 60.670~~
~~(24) 40 CFR 60.670~~
~~(25) 40 CFR 60.670~~

APGI Comment 9:

Condition D.1.2 specifies the applicable PM10 emissions limitation for boilers 1-3 as follows:

The PM10 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.08 lb/MMBtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance…"

Condition D.2.2 specifies the applicable PM10 emissions limitation for boiler 4 as follows:

PM10 emissions from Boiler No. 4 shall not exceed less than 0.217 lb/MMBtu.

Because Condition D.1.2 also includes an equation that incorporates PM10 emissions from Boiler 4, APGI requests that Condition D.2.2 include the same equation specified in Condition D.1.2, and also be modified as follows:

PM10 emissions from Boiler No. 4 shall ~~not exceed~~ **be** less than 0.217 lb/MMBtu **or a value established during the latest compliant stack test. The following equation shall be utilized to determine compliance:**

PM10 emissions = [(PM10 E.F. No. 1 x H.E. No. 1) + (PM10 E.F. No. 2 x H.E. No. 2) + (PM10 E.F. No. 3 x H.E. No. 3) + (PM10 E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

PM10 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb PM10/MMBtu heat input to the respective boiler

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Upon amendment of Condition D.2.2, as requested above, APGI then requests that the Condition D.2.2 note in the equation contained in Condition D.1.2 be deleted.

IDEM Response 9:

The requested change does not affect the emissions calculations or potential emissions of PM10 from Boilers No. 1 - No. 4. The equation and emission limitations necessary to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable for PM10 for Boilers No. 1 - No. 4 are contained within Conditions D.1.2 and D.2.2. For purposes of clarification, the equation will be duplicated in each Condition (D.1.2 and D.2.2) while the emission limitations will remain in the separate D Sections of the permit. Conditions D.1.2 and D.2.2 have been modified as follows:

D.1.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM10 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall not exceed 4490.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the PM10 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.08 lb/MMBtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance:

PM10 emissions = [(PM10 E.F. No. 1 x H.E. No. 1) + (PM10 E.F. No. 2 x H.E. No. 2) + (PM10 E.F. No. 3 x H.E. No. 3) + (PM10 E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

PM10 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb PM10/MMBtu heat input to the respective boiler

Note: PM10 E.F.4 limitation is contained in Condition D.2.2

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Compliance with the PM10 limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.2.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, **PM10 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall not exceed 4490.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and** PM10 emissions from Boiler No. 4 shall ~~not exceed~~ **be** less than 0.217 lb/MMBtu. **The following equation shall be utilized to determine compliance:**

PM10 emissions = [(PM10 E.F. No. 1 x H.E. No. 1) + (PM10 E.F. No. 2 x H.E. No. 2) + (PM10 E.F. No. 3 x H.E. No. 3) + (PM10 E.F. No. 4 x H.E. No.

4)] / 2000 lb/ton

Where:

PM10 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb PM10/MMBtu heat input to the respective boiler

Note: PM10 E.F. (No. 1, No. 2, and No.3) limitations are contained in Condition D.1.2

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

APGI Comment 10:

APGI will be installing PM-CEMS downstream of the wet scrubbers for Boilers 1, 2 and 3. It chose to install PM-CEMS, because the applicable NSPS allows that option in recognition of the difficulty of determining opacity of a wet scrubber exhaust. However, APGI understands that IDEM has taken the position that because the NSPS also contains a 20% opacity standard, APGI will be required, pursuant to Condition B.9 (a), to certify compliance with the opacity standard using some type of basis. APGI notes that the 20% opacity standard is presumed to be protective of a PM mass emissions limitation of 0.1 lb/mm Btu. The applicable PM mass emissions limitation for these boilers will be 0.03 lbmm Btu. Accordingly, APGI indicates herein that it will use its PM-CEMS as its basis for certifying compliance for these boilers. As long as it is able to certify compliance with the applicable PM mass emission limitation, APGI will also certify compliance with the opacity standard. APGI herein requests that IDEM advise it if another mechanism will be required, in order for its proposed opacity standard compliance certification method to be deemed acceptable. Additionally, APGI requests guidance from IDEM on what is expected of it with respect to maintaining records of opacity pursuant to Conditions C.20 and D.1.26(53), since it is going to operate a PM-CEMS and will thus not have a COMS to generate records of opacity.

IDEM Response 10:

Pursuant to Commissioner's Order #2008-01, in lieu of the requirement to monitor opacity under 326 IAC 3-5-1(c)(2)(A), the Permittee shall comply with the alternative monitoring plan as outlined in Condition D.1.15(b). 326 IAC 3-5-1(c)(2)(A) would require APGI to install, operate, and maintain a continuous opacity monitoring system (COM) in order to continuously demonstrate compliance with applicable opacity limitations. Therefore, notwithstanding the provisions of Condition B.25 - Credible Evidence, the alternative monitoring plan will provide a basis for certifying compliance with the applicable opacity standards and limitations of 326 IAC 5 (Opacity Regulations).

Condition D.1.26(53) states that the Permittee shall comply with 40 CFR 60.49(f), which requires that for facilities subject to the opacity standard under 40 CFR 60.44b, the owner or operator shall maintain records of opacity. While Boilers No. 1 - No. 3 are subject to an opacity limit under 40 CFR 60.43b, there are no requirements to monitor or record compliance with the limitation. Therefore, there are no records to maintain. However, should an opacity observation be recorded, the Permittee would be required to maintain the record.

Condition C.20 stipulates the terms under which records of all required monitoring data, reports and support information shall be maintained. Since APGI is not required to record direct observations or measurements of opacity, there are no opacity records to be maintained.

APGI Comment 11:

APGI requests clarification regarding the phrase “When for any one reading, ... or a value established during the latest stack test.” It is envisioned that electrostatic precipitator and scrubber parametric values established during a stack test will be the average of several readings. However, as worded, the condition would require a response action be taken based on a single “snapshot reading.” APGI believes that a valid response action would be to obtain additional readings over a period of time, and perform follow-up actions if the average is less than the stack test established value. It is requested that IDEM advise if the taking of additional readings and averaging them would be an acceptable first response action.

IDEM Response 11:

The value established during the latest stack test will be a composite value based on 3 1-hr averages. In lieu of requiring sources to continuously record the required parameter and record the output as a 3-hr average, sources are required to maintain the required parameter within the established range at all times. The Permittee is required to take response steps in accordance with Section C - Response to Excursions or Exceedances whenever a "snapshot" value is out of range. Therefore, taking additional readings and determining an average prior to taking a first response step would be considered a deviation from the permit.

Section C - Response to Excursions or Exceedances states "corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable."

An appropriate first response step might include an evaluation leading to a determination that the system is in the process of returning to normal and recording the return to normal.

APGI Comment 12:

APGI does not understand the intent of the phrase “Monitor the scrubber inlet rate of the respective wet scrubber at least once per day when the associated boiler is in operation. When for any one reading, the scrubber inlet rate indicates that the *scrubbant flow rate*…” (emphasis added). APGI believes that IDEM’s intent was that APGI monitor the input of all scrubber liquids that remove air contaminants from the airstream. Such liquids include recirculated limestone slurry, fresh water make-up, and mist eliminator backwash. APGI requests herein that IDEM advise if it has correctly summarized IDEM’s intended interpretation of this condition.

IDEM Response 12:

IDEM agrees that APGI's interpretation is correct. No changes have been made as a result of this comment.

APGI Comment 13:

Permit conditions referenced below pertain to SO2 and NOx allowable emissions, as follows:

Item (8) of the TSD and Condition D.1.26 (8) – Allowable SO2 emissions from reconstructed affected facilities;

Item (9) of the TSD and Condition D.1.26 (9) – Allowable SO2 emissions from modified affected facilities that otherwise do not meet the criteria to be classified as reconstructed affected facilities;

Item (14) of the TSD and Condition D.1.26 (14) – Allowable NOx emissions from modified affected facilities that otherwise do not meet the criteria to be classified as reconstructed affected facilities; and

Item (19) of the TSD and Condition D.1.26 (19) – Allowable NOx emissions from reconstructed affected facilities.

The modifications for Boilers 1, 2, and 3 do not meet the criteria to be classified as reconstructed affected facilities. APGI is thus interpreting that Conditions D.1.26 (9) and D.1.26 (14) specify the applicable SO2 and NOx allowable emissions, respectively, and requests that IDEM so indicate if it disagrees.

IDEM Response 13:

Condition D.1.26 (8) references 40 CFR 60.42b (k)(1) which specifies SO2 emission limitations for affected facilities that commences construction, reconstruction, or modification after February 28, 2005. Condition D.1.26 (9) references 40 CFR 60.42b (k)(4) which provides alternative emission limitations, for modified facilities. Since APGI has the option of complying with either condition, it is appropriate for the permit to reference both.

Condition D.1.26(14) references 40 CFR 60.44b (a), which specifies NOx limitations for affected facilities. Condition D.1.26(19) references 40 CFR 60.42b (l), which specifies NOx limitations for affected facilities that commenced construction or reconstruct after July 9, 1997. APGI is correct that Condition D.1.26 (19) does not apply, since the boilers will not meet the definition of reconstructed. 40 CFR 60.44b (l) only requires compliance if the affected facility is reconstructed. Therefore, no action is required by APGI due the inclusion of 40 CFR 60.44b (l).

APGI Comment 14:

APGI believes that IDEM wishes to impose electrostatic precipitator and scrubber parametric monitoring requirements, in spite of the fact that there will be CEMS that directly measure PM and SO2 emissions, because it is unsure of the monitoring needed to assure compliance with PM_{10} emission limits. APGI believes there is a possibility that a correlation can be developed for demonstrating PM_{10} compliance, once it has operational, stack testing, and CEMS data, without

a) The need for control device parametric monitoring (unless the CEMS is down); and
b) The need to rely on the SO2 CEMS as a surrogate for condensable PM_{10}.

If APGI is able to demonstrate a PM_{10} correlation as outlined above, it then reserves the right to file an amended permit application that:

a) Removes the control device operating parameter monitoring requirements (unless the CEMS is down), and
b) Amends the SO2 from a 24-hour block average basis to the 30-day rolling average Basis, as provided by the applicable NSPS.

IDEM Response 14:

IDEM, OAQ is making no determination at this time. Upon receipt of a permit modification application which includes all necessary documentation, OAQ will review all pertinent information, including applicable regulations, and make a determination at that time.

APGI Comment 15:

Operation of the scrubber for Unit 4 will be required with respect to generation of SO2 emissions reductions for the CAIR program, but not for compliance with the proposed PM emission limits for this boiler. On December 19, 2006, APGI provided IDEM with a stack test report demonstrating that compliance with a 40% opacity standard more than assured compliance with the applicable PM emission limit of 0.228 lb/mm Btu for boiler 4. At that time, PM control was provided solely by the electrostatic precipitator. APGI is confident that, when it performs the next stack test required by Condition D.2.10 (a), it will be able to demonstrate a correlation between the revised PM emission limit of 1425 tons per 12 consecutive month period and opacity. Accordingly, APGI herein reserves the right to file a permit application upon completion of the stack test required by Condition D.2.10(a) that removes the scrubber operating parameter response levels and CAM indicators as they pertain to the scrubber and instead amend the CAM specifically for opacity and electrostatic precipitator operating parameters.

IDEM Response 15:

IDEM, OAQ is making no determination at this time. Upon receipt of a permit modification application which includes all necessary documentation, OAQ will review all pertinent information, including applicable regulations, and make a determination at that time.

APGI Comment 16:

Based on experience gained from Alcoa Inc. – Warrick Operations, APGI believes that baghouse pressure drop monitoring is not a valid indicator of baghouse compliance performance. It reserves the right to file a permit application wherein it would request that baghouse pressure drop monitoring be deleted, and that baghouse monitoring be based on visible emissions observations and Method 9 observations.

IDEM Response 16:

IDEM, OAQ is making no determination at this time. Upon receipt of a permit modification application which includes all necessary documentation, OAQ will review all pertinent information, including applicable regulations, and make a determination at that time.

APGI Comment 17:

APGI was issued Part 70 Operating Permit No.: T173-6630-00002 on June 13, 2006. APGI submitted comments on the draft Part 70 Permit during the public notice period and timely appealed certain conditions in the Part 70 Permit after it was issued. APGI's appeal is currently pending before the Indiana Office of Environmental Adjudication (OEA). The draft source and permit modifications reissue several of the same Part 70 Permit conditions upon which APGI has already submitted comments and/or that are subject to APGI's ongoing appeal. APGI reserves its right to contest these conditions as part of an appeal of the permit modification.

IDEM Response 17:

IDEM, OAQ confirms that the joint agreement and motion for stay of contested permit provisions for Part 70 Operating No.: 173-6630-00002, issued on June 13, 2006, filed with the OEA on June 5, 2007 is in effect as of the date of issuance of this SSM/SPM.

Comments from Alcoa Power Generating, Inc. (APGI) on the Technical Support Document

IDEM does not amend the Technical Support Document (TSD) because the technical support

material is maintained to document the original review that was placed on public notice. This addendum to the TSD documents all comments, responses to comments and changes made from the time the permit was drafted until a final decision is made.

APGI TSD Comment 1:

APGI requests that the table included below be amended as suggested therein.

Stack Summary					
Stack ID	**Operation**	**Height (feet)**	**Diameter (feet)**	**Flow Rate (acfm)**	**Temperature (^oF)**
241-3	Boiler No. 3 (wet scrubber)	380	13.5	464,403	132
New 243 ~~242~~	Boiler No. 4 (wet scrubber)	500	20.0	976,950	132
silo vent 283C ~~243~~	Flyash Storage Silo (baghouse)	150	0.75	1,500	125
The remainder of the table is satisfactory					

IDEM Response 1:

IDEM, OAQ agrees that the above modified table reflects changes made to the permits in response to comments submitted by Alcoa Power Generating, Inc.

APGI TSD Comment 2:

APGI appreciates the description of various maintenance activities that will comprise a part of the modifications for Boilers 1-4. Included in Appendix A are the letters wherein APGI asked that the contemplated maintenance activities be included in the description of activities associated with the modifications. In addition, since the Appendix A letters were sent, another project has been approved, which APGI wishes to be included in the modifications descriptions in the TSD. The project will be to replace supervisory instrumentation on the turbines for units 1 and 4 that allow monitoring of turbine vibration and adjustment of critical element alignment. Accordingly, AGPI requests that the following additional descriptions be included, as follows:

> The scrubber and boiler optimization project will involve the following modifications to the boilers:
>
> Boilers 1-3
> Routing the precipitator ducting in a manner that will convert the ESPs from hot to cold side units
> Unit 1 turbine will be modified by the installation of a dense pack
> The coal pulverizers for all 3 units will be upgraded
> New forced draft fans for all 3 units
> New condensate pumps for all 3 units
> Replacement of 480 volt and **4160** ~~5460~~ volt switchgears
> Upgrade of the 60 volt transformer to a 120 volt transformer for units 1 and 2
> Replacement of the exciters for units ~~1~~ **2** and ~~2~~ **3**
> **New feedwater pumps**
> **New condenser pumps**
> **Primary superheater replacements**
> **Condenser cleaning**
> **Upgraded boiler controls**
> **T-R Set replacements in the first two precipitator sections for each unit**
> **Upgrade of the 60 volt transformer to a 120 volt transformer for units 1 and 2**

Replacement of turbine supervisory instrumentation for Unit #1

Boiler 4
Upgrade of the turbine by installation of a dense pack
Replacement of stator on generator
New economizer
New exciter
Repair of several hundred feet of coal piping
Replacement of the main transformer
Replacement of the 480 volt cabinet
Replacement of turbine supervisory instrumentation

IDEM Response 2:

IDEM, OAQ agrees that the above modified table reflects updated information provided by Alcoa Power Generating, Inc.

Public Comments - General

On April 12, 2008, John Blair, President of Valley Watch, Inc., submitted comments on the proposed significant modification to the Part 70 permit. The summary of the comments and revisions to the permit (**bolded** language has been added, the ~~strikethrough~~ language has been deleted) are as follows:

Comment 1:

We wonder about the whole issue of the notice that was given surrounding the public meeting and the issuance of these permits. We found several inconsistencies on document dates that left us wondering if there was actually a real thirty days of public comment allowed.

Since we were somehow conveniently left off of the notice "list" although we have received notice on Title V permits from this region for nearly two decades, we were forced to rely on what we could gather from the IDEM permits web site. Why we were removed from the notice list is unsure except that we can only speculate that it is because we are usually the only group which files consistent comments on such matters and we have observed how IDEM seems to want to narrow public participation, at nearly every level under Indiana's current Governor and IDEM Commissioner.

In the past and in its Title V and NSR evaluations by EPA, IDEM took pride in routinely allowing for extension to comment periods on permits that were complex or were issued in close time proximity to other permits in a confined region. Apparently that accommodation for public participation is a mere relic on the trash heap of Indiana's former democratic form of government.

In any case, since we were not notified of these permits, we had to rely on IDEM's web site for our information. There we found a page:
http://www.IN.gov/apps/idem/caats/loadPermitApplication.jspx?id=626290125AWILE
On that page it was indicated that these permits were given "public notice" on 3/5/08.

However, when you clicked on 173-22006-00002 and 173-22581-00002 you are taken to two sites that say public notice was issued on 3/13/08 and not 3/5/08 as indicated on the previous page.

Then, we downloaded the materials we were lead to believe were the actual permits in question. Upon close inspection of those permits, we found that both of these permits were not "created" until 3/19/08. The creation date was listed under "Properties" in the drop down menu of Adobe Acrobat Reader under "file."

Adobe Acrobat is the chosen format for use in creating such documents because it offers great security availability which can be controlled by the document's creator. These security measures include making it impossible to alter an original document. That is why government agencies use the format almost exclusively for permits and rule makings. It is also a program that leaves an electronic trail of statistics and information which can be used to verify a document's authenticity. One of those parameters is the date on which the document was created.

Thus, in this case, the documents in question, **Significant Source Modification No. 173-22006-00002, and Significant Permit Modification No. 173-22581-00002** did not even exist when the thirty day notice "clock" began running. It was six days later that the documents were even created.

We therefore strongly protest the loose and fast way that IDEM has chosen to issue public notice, limit the time needed for public comment and cannot be sure without having ample time to review the portable document file (pdf) with the document that is considered "official" that the documents in question are even the same or may have been altered to the benefit of the permittee in some way.

Thus, we ask that a whole new public comment period be initiated with all the documents in question being re-released with consistent and verifiable dates. We also ask for an additional forty-five days for a total of seventy-five days total new comment period.

IDEM Response 1:

Mr. Blair has not previously been included in any mailings regarding Alcoa Power Generating, Inc. - Warrick Power Plant. At his request during the public meeting held on April 9, 2008, Mr. Blair has been added to the Interested Parties list for Warrick County and specifically for Alcoa Power Generating, Inc.

IDEM, OAQ notified the public that the two draft permits were available for public comment in a mailing sent out on March 5, 2008 and a public notice published in the Boonville Standard on March 13, 2008. The draft permit documents were made available for review at the Newburgh Library, 23 West Jennings Street, Newburgh, Indiana 47630, at IDEM's Southwest Regional Office, 1120 N. Vincennes Ave., Petersburg, at IDEM's main office in Indianapolis and at http://www.in.gov/idem/permits/air/pending.html on the internet. On March 19, 2008, in the Evansville Courier and on March 20, 2008, in the Boonville Standard, OAQ also issued notice that it would conduct a public meeting regarding the draft permits on April 9, 2008, in Newburgh at the Newburgh Central Library, 4111 Lakeshore Drive, Newburgh, IN 47629. The public comment period ended on April 14, 2008.

OAQ is not required to post the permit online for public viewing. This service is provided as a courtesy and does not effect the public notice period. However, both permits were posted online upon approval for public notice. The online status date 03/05/2008, is the date the permit was approved for public notice. Due to the inability to alter the original documents, and in order to include the Notice of the Public Meeting, it was necessary to re-create the Adobe Acrobat documents on 3/19/2008.

These permits were Public Noticed in accordance with Indiana's air permit rules, specifically 326 Indiana Administrative Code 2-7-17, which gives the public at least 30 days to submit written comments. Given that there were no additional requests for an extension to the public comment period, IDEM believes that the length of the comment period was sufficient and appropriate.

Comment 2:

We also question the issuance of this permit as PSD instead of NSR since it is now clear that currently nearby monitors indicate that Warrick County will soon be listed as "nonattainment" for

the pollutant ozone. EPA issued new rules under the NAAQS which show that Warrick County, home of the source has been in exceedance of the new NAAQS for Ozone.

That coupled with the fact that the source will experience an increase in ozone forming VOC emissions of 42.48 tons per year on top of a rather large level of 729 tons per year already emitted shows that the expansion of the source will increase levels of ozone downwind of the facility and in excess of the 40 tons per year threshold.

Thus, the source should be required to secure "offsets" to at least a level of 1.1X the 42.48 tons that are listed in tables identified as **PTE of the New Emissions Units Associated with the Scrubber Project and Boiler Upgrades 16.99 TPY** (page 8 of 138 in the Technical Support Document), **PTE of the New Emissions Units Rental Generators 4.81 TPY** (page 9 of 138 TSD), **Emissions Increase (ATPA) Boilers 1-3, 14.08 TPY** (Page 11 of 138) and **Emissions Increase (ATPA) Boiler 4, 6.60 TPY** (Page 11 of 138 TSD) equals **42.48 Tons per year,** clearly over the threshold for this to be an NSR permit instead of a PSD permit.

Of course there may be other issues that pertain to the rules as they exist under New Source Review like previous changes to the boilers, etc., that resulted in increased pollution for which no permits were issued and the New Source Review process did not run its course. There have been numerous improvements and rebuilds over the year on all four boilers.

IDEM Response 2:

Warrick County is currently listed as attainment for ozone. It is appropriate to evaluate Volatile Organic Compounds (VOC) emissions pursuant to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)). "Offsets" are required for major modifications in a nonattainment area. Therefore, "offsets" for VOC emissions are not relevant to this permitting action.

The increase in VOC emissions associated with the scrubber and boiler optimization project is detailed in the Permit Level Determination – PSD or Emission Offset section of the TSD. The VOC emissions summary states the PTE of the new units is 16.99 tpy, the emissions increase (ATPA) Boilers 1-3 is 14.08 tpy, and the emissions increase (ATPA) Boiler 4 is 6.60 tpy. The rental generators are not considered to part of the scrubber and boiler optimization project, and the PTE of VOC from the rental generators was evaluated for PSD applicability separate from the scrubber and boiler optimization project. Therefore, the increase of VOC emissions from the scrubber and boiler optimization project is 37.67 tpy. This increase is below the 40 tpy threshold necessary to be considered a major modification under the provisions of 326 IAC 2-2 (PSD).

OAQ is not aware of any improvements or rebuilds that resulted in an increase in pollutants for which proper permitting authority was not granted. Should the commenter be in posession of information that would substantiate activities occurring at the boilers without proper New Source Review processing, OAQ will review the information upon submittal.

Comment 3:

While we recognize that this modification is being done under rules that assumed the implementation of the federal and subsequent Clean Air Interstate Rule, designed to reduce the level of fine particle formation from both NOX and SOX, we are concerned with reports that the CAIR rule was poorly defended by the Bush Justice Department before the Circuit Court of the District of Columbia.

Should the Court overturn the CAIR rule and Alcoa choose to refuse to adhere to the state rule which would no longer be in accord with the federal rule, the situation would exist where the applicant could simply turn off the scrubbers that are the reason for this permit modification.

What kind of fall back policy does IDEM have to assure that it will continue to comply with the

State Implementation Plan that it has filed with EPA? It is our understanding there are also "Maintenance Plan(s)" that are contracted as well with EPA to comply with the NAAQS for both Ozone and Fine Particles in the formerly nonattainment designated Warrick County.

Many of the enforceable measures contained in those SIPs are dependent on the full implementation of CAIR.

IDEM Response 3:

This permitting action does not take into account the provisions of the Clean Air Interstate Rule (CAIR) program which does not take effect until 2009.

Upon startup of each of the scrubbers for Boilers 1, 2, and 3, each boiler will become subject to the provisions of 40 CFR 60, Subpart Db -New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units. APGI has elected to comply with 40 CFR 60, Subpart Db, by installing wet scrubbers, and as such, upon initialization of the boiler optimization project, the wet scrubbers will no longer be optional.

Comment 4:

Last, the success of a permitting agency is not measured in the number of permits issued in any time frame. Instead, it is measured in general improvement in health and quality of life for the people who must live downwind. Congress passed the Clean Air Act, and other "environmental" laws to ensure that people downwind or downstream had safe air to breathe and water to drink. That process started more than four decades ago but in Southwest Indiana, residents have not been allowed to share the full measure of the improvements brought about by those same laws. Instead, during that time, we have been forced to breathe worse air due to the advent of numerous facilities that were allowed to escape the intent of those laws through grandfathering or weak enforcement.

The result is that now, this area is considered the electrical energy sacrifice zone of the world. Lax enforcement and lackadaisical permission has made this region unfit for many people's health. Personal stories abound of people leaving the region, finding improved respiratory health only to return and have their afflictions return almost immediately.

For bureaucrats who see their jobs as enhancing economic opportunity instead of environmental and health protection, these human anecdotes are not relevant to the decision. They should be.

Giving increasing permission to pollute spells trouble for people who must breathe air contaminated with large volumes of toxic chemicals and fine particles. These are the issues that should concern those who issue permission to pollute.

When people are healthy, they are also productive. When they are sick their productivity falls. There are also economic consequences that need to be addressed as are medical bills and early deaths.

IDEM Response 4:

IDEM has incorporated into the permits all the applicable requirements from the air pollution control rules found in Title 326 of the Indiana Administrative Code (IAC). These rules are discussed in the Technical Support Document and are included as federally enforceable permit terms and conditions in the permits. The air pollution control rules were adopted by the Indiana Air Pollution Control Board (and its predecessor) pursuant to the statutory authority granted by the Indiana legislature. This grant of rule making authority is found principally under Indiana Code (IC) 13-15-2-1 as well as in other statutory provisions.

The federal Clean Air Act is important to environmental regulation in Indiana. The Act sets out the authority that the U.S. Environmental Protection Agency has to pass regulations to control pollution. When setting out new air pollution control regulations U.S. EPA usually requires Indiana to pass corresponding regulations that are at least as strict. U.S. EPA then reviews Indiana's new regulations to make sure they achieve at least the same level of pollution control as the federal rule.

Indiana's environmental policy is set out by statute at IC 13-12-3-1, which states:

> The purpose of this title is:
>
> (1) to provide for evolving polices for comprehensive environmental development and control on a statewide basis;
>
> (2) to unify, coordinate, and implement programs to provide for the most beneficial use of the resources of Indiana, and
>
> (3) to preserve, protect, and enhance the quality of the environment so that, to the extent possible, future generations will be ensured clean air, clean water, and a healthful environment.

IDEM Change

Upon further review, IDEM, OAQ has replaced the header on all documents to reflect the current approved header.

~~INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT~~

~~*We make Indiana a cleaner, healthier place to live.*~~

~~*Mitchell E. Daniels, Jr.*~~
~~Governor~~

~~*Thomas W. Easterly*~~
~~Commissioner~~

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Significant Permit Modification

Source Description and Location

Source Name:	Alcoa Power Generating, Inc. - Warrick Power Plant (Alcoa Warrick Power Plant)
Source Location:	4700 Darlington Road, Newburgh, Indiana 47630
County:	Warrick
SIC Code:	4931
Operation Permit No.:	T 173-6630-00002
Operation Permit Issuance Date:	June 13, 2006
Significant Source Modification No.:	173-22006-00002
Significant Permit Modification No.:	173-22581-00002
Permit Reviewer:	Jenny Acker

Source Definition

This company consists of two (2) plants:

(a) Alcoa aluminum production plant, the primary operation, is located at Jct. IN Hwys. 66 & 61, Newburgh, Indiana.

(b) Alcoa power plant, the supporting operation, is located at 4700 Darlington Road, Newburgh, Indiana.

Since the two (2) plants are located on contiguous properties, and are owned by one (1) company, they will be considered one (1) source.

Separate Part 70 permits will be issued to Alcoa Inc.- Warrick Operations and Alcoa Power Generating, Inc. - Warrick Power Plant (Alcoa Warrick Power Plant) solely for administrative purposes.

These two plants have different Plant ID Numbers.

Alcoa Inc. – Warrick Operations ID - 173-00007
Alcoa Power Generating, Inc. - Warrick Power Plant ID - 173-00002

Existing Approvals

The source was issued Part 70 Operating Permit No. 173-6630-00002 on June 13, 2006.

County Attainment Status

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Nonattainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) Volatile organic compounds (VOC) and nitrogen oxides (NO_X) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to ozone. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Warrick County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.

(c) Other Criteria Pollutants
Warrick County has been classified as attainment or unclassifiable for PM_{10}, SO_2, NO_2, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Since this source is classified as a fossil fuel fired steam electric generating plant, it is considered to be in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Status
PM	Greater than 100
PM_{10}	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
CO	Greater than 100
NO_X	Greater than 100

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM_{10} (a surrogate for PM2.5) is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon the Technical Support Document (TSD) to the Part 70 Operating Permit T173-6630-00002.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Cyanide	Greater than 10
Lead Compounds	Greater than 10
All Others	Less than 10 each
TOTAL	Greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM_{10}	4,213
PM2.5	1,190
SO_2	114,055

Pollutant	Actual Emissions (tons/year)
VOC	729
CO	25,881
NO_X	20,024
Lead	16.19

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Alcoa Power Generating, Inc. - Warrick Power Plant (Alcoa Warrick Power Plant) on November 16, 2005, relating to a scrubber and boiler optimization project. Alcoa Warrick Power Plant will install one (1) scrubber at each of the four (4) existing boilers. The operation of the four (4) wet scrubbers will require limestone and gypsum handling, conveying, grinding, and storage facilities. Additionally, a boiler optimization project for Boilers No. 1, No. 2, and No. 3 will begin in 2008. The boiler optimization project will involve modifications to the turbines and feed pumps and will result in the heat input capacity of each boiler increasing from 1,357 MMBtu/hr to 1,589 MMBtu/hr. There will also be an upgrade to the turbine at Boiler No. 4; however, there will not be a resulting increase in the heat input capacity at Boiler No. 4 as a result of the modification.

The scrubber and boiler optimization project will involve the following modifications to the boilers:

Boilers 1-3
Routing the precipitator ducting in a manner that will convert the ESPs from hot to cold side units
Unit 1 turbine will be modified by the installation of a dense pack
The coal pulverizers for all 3 units will be upgraded
New forced draft fans for all 3 units
New condensate pumps for all 3 units
Replacement of 480 volt and 5460 volt switchgears
Upgrade of the 60 volt transformer to a 120 volt transformer for units 1 and 2
Replacement of the exciters for units 1 and 2

Boiler 4
Upgrade of the turbine by installation of a dense pack
Replacement of stator on generator
Replacement of primary superheater tubes and condenser tubes
Replacement of 480 volt and 4160 volt switchgears

Alcoa Warrick Power Plant has also proposed to add two (2) rental diesel generators for seasonal dredging. The following is a list of the proposed and modified emission units and pollution control devices:

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NOx burner and over-fire air in 2003. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NOx burner and over-fire air in 2004. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NOx burner and over-fire air in 2002. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

(d) One (1) dry bottom, pulverized coal-fired boiler identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of particulate matter. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet scrubber with lime injection began in 2005. Upon start-upon of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from stack 243 to stack 242, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

(e) One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2008 in order to accommodate the transfer of limestone.

(f) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of 40 tons, with fugitive emissions controlled by periodic watering by truck.

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) Three enclosed pipe conveyors, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

(g) One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through stack 243.

(h) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2008, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere.

(i) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2008, each with a rated capacity of 500 horsepower, located at the Y-pit for the purpose of removing rainwater.

(j) Two (2) rental diesel generators that shall not exceed 775 hp each, approved for construction in 2008, identified as Engine1 and Engine2.

(k) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2008, rated at 465 horsepower, using no controls.

<u>Independent Projects - Alcoa Power Generating, Inc. - Warrick Power Plant Scrubber/Boiler Optimization Project & Rental Generators for Seasonal Dredging:</u>

Alcoa Warrick Power Plant has historically required the occasional use of rental dredge pumps at the ash pond. The rental units have been exempted from the modification approval requirements of 326 IAC 2-7-10.5, since they met the requirements of temporary operations pursuant to 326 IAC 2-1.1-3(h)(3). Alcoa Warrick Power Plant was issued a source modification (173-22876-00002) on May 18, 2006, for the purpose of permitting the rental units as emission units and eliminating need for the frequent exemptions.

IDEM, OAQ, erroneously failed to incorporate the source modification into the Part 70 Operating Permit (173-6630-00002) upon issuance on June 13, 2006. Since the Part 70 Operating permit supersedes all prior issued source modifications, the rental dredge pumps are subject to the modification requirements of 326 IAC 2-7-10.5. The use of rental dredge pumps will permitted as part of this Significant Source Modification and Significant Permit Modification. The history of the rental dredge pumps establishes the dredge pumps as a separate project from the scrubber and boiler optimization project.

Independent Projects - Alcoa Power Generating, Inc. - Warrick Power Plant & Alcoa Inc. - Warrick Operations :

Alcoa Inc. - Warrick Operations (Plant ID No.: 173-00007) was issued a Significant Source Modification (173-24020-00007) on September 24, 2007, and a Significant Permit Modification (173-24585-00007) on October 30, 2007, for the a rotary dross furnace project. The rotary dross furnace project is comprised of the following:

- Increase the 8M1 melter capacity from 303,0510 pounds to 340,000 pounds, which will result in an hourly maximum production rate increase from 47 tons per hour to 60.5 tons per hour, and install low NOx burners.
- Increase the 8EMC east holding furnace capacity from 259,985 pounds to 317,902 pounds. Additionally, Alcoa has proposed to install low NOx burners in the 8EMC east holding furnace.
- Construct a new rotary furnace. Currently, Alcoa cools the dross from the upstream primary aluminum operations, sends it offsite for metal recovery, and brings the recovered metal back on-site for further processing. The installation of the rotary dross furnace will minimize the need for a third party processor to recover the metal from the dross. Alcoa will still utilize third party processors when the rotary dross furnace is not operational.
- Construct a reagent hopper for reagent injection at the rotary group 1 furnace baghouse.
- Construct a flux salt storage silo for the rotary group 1 furnace.

During the application review process for the rotary dross furnace project, IDEM, OAQ, evaluated the rotary dross furnace project at Alcoa Inc. - Warrick Operations and the scrubber/boiler optimization project at Alcoa Power Generating, Inc. - Warrick Power Plant, and concluded that the proposed scrubber and boiler optimization project is a separate project from the rotary dross furnace project. This conclusion was based on the following information:

- The scrubbers are required for compliance with 40 CFR 63, Subpart DDDDD with funding jointly approved by Alcoa Power Generating Inc and VECTREN on August 26, 2004. An Interim (173-22006I-00002) was issued on December 29, 2005, for the scrubber project.

- This proposed modification at the Alcoa Inc. - Warrick Operations will not require energy beyond the Alcoa Warrick Power Plant current capacity and is being implemented to reduce cost associated with third party processing of dross and painted scrap. Funding was approved by Alcoa North America Rolled Products Division in July 2006.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm	Temperature (^{0}F)
241-1	Boiler No. 1 (wet scrubber)	380	13.5	464,403	132
241-2	Boiler No. 2 (wet scrubber)	380	13.5	464,403	132
241-3	Boiler No. 3 (wet scrubber)	380	13.5	464,403	132

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm	Temperature (^{0}F)
242	Boiler No. 4 (wet scrubber)	500	20.0	976,950	132
243	Flyash Storage Silo (baghouse)	150	0.75	1,500	125
244	Coal & Limestone unloading & transfer station (baghouse)	TBD	TBD	TBD	TBD
245	Limestone Mill Day Silo#1 (bin vent)	150	0.75	1,500	Ambient
246	Limestone Mill Day Silo#2 (bin vent)	150	0.75	1,500	Ambient
247	Limestone Mill Day Silo#3 (bin vent)	150	0.75	1,500	Ambient
248	Gypsum dewatering system (vent)	TBD	TBD	TBD	Ambient

* GEP stack height is 380 ft.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

PTE of the New Emissions Units Associated with the Scrubber Project and Boiler Upgrades	
Pollutant	**Potential To Emit (tons/year)**
PM	> 25
PM_{10}	> 25
SO_2	5.36
VOC	16.99
CO	6.95
NO_x	> 25

PTE of the New Emissions Units Associated with the Scrubber Project and Boiler Upgrades	
Pollutant	**Potential To Emit (tons/year)**
HAPs	**Potential To Emit (tons/year)**
Lead Compounds	0.0001
Beryllium Compounds	0.0000234

PTE of the New Emissions Units Rental Generators	
Pollutant	**Potential To Emit (tons/year)**
PM	4.15
PM_{10}	4.15
SO_2	8.72
VOC	4.81
CO	14.68
NO_x	> 25
HAPs (total)	0.03

Note: For each pollutant, emissions are based on the worst case of 2 scenarios.

PTE Change of the Modified Units (Boilers 1-3)			
Pollutant	**PTE Before Modification** (ton/yr)	**PTE After Modification** (ton/yr)	**Net Difference** (ton/yr)
PM	not determined	not determined	not determined
PM_{10}	not determined	not determined	not determined
SO_2	91,116	106,694	15,578
VOC	not determined	not determined	not determined
CO	2099.8	2099.8	0
NO_X	10877	8640	< 0

Note: Boilers 1 - 3 are identical units

- PM/PM10/VOC (PTE before/after modification) are noted as "not determined" because there are no existing limits for these pollutants and the method for determining the PTE is based on the amount of coal used and the characteristics of the coal. However, assuming the method of operation (i.e. types of coal used) does not change after the modification and given that the rated capacities of the boilers (MMBtu) will increase, a conclusion that a positive the net difference (tons/yr) will occur can be made.
- SO_2 (PTE before modification) is based on an existing SO_2 limit [326 IAC 7-4-10] of 5.11 lb/MMBtu and the rated MMBtu of the boilers prior to the modification.
- SO_2 (PTE after modification) is based on an existing SO_2 limit [326 IAC 7-4-10] of 5.11 lb/MMBtu and the rated MMBtu of the boilers after the modification.
- CO (PTE) is based on an existing CO limit of 2099.80 tons per year, combined. This limit is not effected by the modification.
- NOx (PTE before modification) is based on an existing NOx reduction limit of 0.61 lb/MMBtu and the rated MMBtu of the boilers prior to the modification. The NOx reduction limit is pursuant to a Pollution Control Project (PCP) and is the limit established by the last RATA prior to the installation of low NOx burners. This limit is explicitly stated in the permit.

- NOx (PTE after modification) is based on a new NOx PSD avoidance limit.

There is no change in the potential to emit of any pollutant for Boiler No. 4 based on current limits.

Total PTE Change due to the Modification			
Pollutant	**PTE New Emission Units** (ton/yr)	**Net Increase to PTE of Modified Emission Units** (ton/yr)	**Total PTE for New and Modified Units** (ton/yr)
PM	> 25	not determined	> 25
PM_{10}	> 25	not determined	> 25
SO_2	14.08	15,578	> 25
VOC	21.80	not determined	not determined
CO	21.63	0	21.63
NO_X	> 25	0	> 25

This source modification is subject to 326 IAC 2-7-10.5(f)(4) (A), (B), and (C) for any modification with a potential to emit greater than or equal to twenty-five (25) tons per year of the following pollutants: particulate matter (PM) or particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM_{10}), sulfur dioxides (SO_2), and nitrogen oxides (NO_X). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1), because this modification requires significant changes in existing Part 70 permit terms or conditions.

Permit Level Determination – PSD or Emission Offset

Modification No. 1: Scrubber & Boiler Optimization Project

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emissions (tons/yr)											
Emission Unit	**PM**	**PM10**	**SO2**	**NOx**	**CO**	**VOC**	**H_2SO_4**	**Pb**	**Be**	**Hg**	**F^-**
PTE (New Units)											
Firewater Booster Pump	0.10	0.10	0.24	2.00	0.67	0.29	0	0	0	0	0
Dry Fly Ash	0.84	0.84	0	0	0	0	0	1.0E-4	2.34E-5	0	0
Limestone Handling	40.74	37.79	0	0	0	0	0	0	0	0	0
Gypsum Dewatering	8.26	8.26	0	0	0	0	0	0	0	0	0
Limestone Haul Roads	23.58	7.22	0	0	0	0	0	0	0	0	0

Emissions (tons/yr)											
Emission Unit	**PM**	**PM10**	**SO2**	**NOx**	**CO**	**VOC**	**H_2SO_4**	**Pb**	**Be**	**Hg**	**F^-**
Y-pit Haul Roads	349.29	85.49	0	0	0	0	0	0	0	0	0
Y-pit Pumps	5.50	5.50	5.13	77.5	6.29	16.70	0	0	0	0	0
PTE	**428.31**	**145.20**	**5.36**	**79.50**	**6.95**	**16.99**	**0**	**1.0E-4**	**2.34E-5**	**0**	**0**
Actual To Projected Actual (Boilers 1-3)											
Baseline	1,600.00	2,595.02	62,511.75	8,686.19	999.51	31.10	322.95	0.25	0.0446	.084	66.93
Projected Actuals	595.06	1,591.2	11,901.30	7,537.49	1,051.29	45.54	317.20	0.09	0.0165	0.096	65.40
Emissions Increase (ATPA)	**< 0**	**< 0**	**< 0**	**< 0**	**51.78**	**14.08**	**< 0**	**< 0**	**< 0**	**0.012**	**1.91**
Actual To Projected Actual (Boiler 4)											
Baseline	1,575.0	2,259.36	42,528.21	5,074.94	47.62	22.73	347.47	0.49	0.088	0.02	45.87
Projected Actuals	1,243.78	2,834.26	38,868.12	4,993.26	64.78	29.33	361.93	0.20	0.035	0.05	43.94
Emissions Increase (ATPA)	**< 0**	**574.90**	**< 0**	**< 0**	**17.16**	**6.60**	**14.46**	**< 0**	**< 0**	**0.03**	**< 0**
Actual to Projected Actual (Increased Utilization - Coal Handling)											
Baseline	242.244	189.93	0	0	0	0	0	0.004	7.20E-4	0	0
Projected Actuals	397.53	300.44	0	0	0	0	0	0.006	1.09E-3	0	0
Emissions Increase (ATPA)	**155.09**	**110.51**	**0**	**0**	**0**	**0**	**0**	**0.002**	**3.7E-4**	**0**	**0**

Hybrid Test (tons/yr)											
Emission Unit	**PM**	**PM10**	**SO2**	**NOx**	**CO**	**VOC**	**H_2SO_4**	**Pb**	**Be**	**Hg**	**F^-**
Total PTE New Units	428.31	145.20	5.36	79.50	6.95	16.99	0	1.0E-4	2.34E-5	0	0
Total Emissions Increase from ATPA	155.09	685.41	<0	9.47	68.93	20.68	14.46	0.002	3.7E-4	0.04	1.91
Hybrid Test Emissions Increase	**583.40**	**830.62**	**5.36**	**79.50**	**75.88**	**36.67**	**14.46**	**0.002**	**0.39E-4**	**0.04**	**1.91**
PSD Significant Threshold	**25**	**15**	**40**	**40**	**100**	**40**	**7**	**0.6**	**0.004**	**0.10**	**3**

H_2SO_4 - Sulfuric Acid, Pb - Lead, Be - Beryllium, Hg - Mercury, F^- - Fluorides

Emissions (ton/yr)				
Emission Unit	**PM**	**PM10**	**NOx**	**H_2SO_4**
PTE of New Units				
Firewater Booster Pump	0.10	0.10	2.00	0
Dry Fly Ash	0.84	0.84	0	0
Limestone Handling	40.74	37.79	0	0
Gypsum Dewatering	8.26	8.26	0	0
Limestone Haul Roads	23.58	7.22	0	0
Y-pit Haul Roads	349.29	85.49	0	0
Y-pit Pumps	5.50	5.50	77.5	0
PTE	**428.31**	**145.20**	**79.50**	**0**
Actual to Future Allowables (Existing Units)				
Baseline- Boilers 1-3	1,600.00	2,595.02	8,686.19	322.95
Baseline-Boiler 4	1,575.0	2,259.36	5,074.94	347.47
Baseline - Coal Handling	242.44	189.93	0	0
Total Baseline	**3,417.44**	**4,978.31**	**13,761.13**	**670.42**
Future Allowables - Boilers 1-3	1,060.0	4,490.0	13,720.0	677.00
Future Allowables - Boiler 4	1,425.0			
Future Allowables - Coal Handling	450.0	340.0	0	0
Total Future Allowables	**2,932.0**	**4,830.0**	**13,720.0**	**677.0**
Significant Emissions Increase of Project				
PTE of New Units	428.31	145.20	79.50	0
Actual to Future Allowables	-482.44	-148.31	-41.13	6.58
Emissions Increase of the Project	**-54.13**	**-3.11**	**38.37**	**6.58**
PSD Significant Threshold	**25**	**15**	**40**	**7**

[1)] Future Allowables are based on federally enforceable limits, accepted as part of this modification SSM 173-22006-00002 & SPM 173-22581-00002

This modification (Scrubber & Boiler Optimization Project) to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Warrick County has been designated as nonattainment for $PM_{2.5}$ in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in $PM_{2.5}$ Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the $PM_{2.5}$ major NSR regulations, states should assume that a major stationary source's PM10 emissions represent $PM_{2.5}$ emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the $PM_{2.5}$ NAAQS. A significant emissions increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM10. Alcoa Power Generating, Inc. - Warrick Power Plant has limited the potential to emit of PM10 from the modification to less than fifteen (15) tons per year. Therefore, assuming that PM10 emissions represent $PM_{2.5}$ emissions, 326 IAC 2-1.1-5 does not apply for $PM_{2.5}$.

Since this source is considered a major PSD source and a major source under Nonattainment NSR and the unrestricted potential to emit of this modification (Scrubber & Boiler Optimization Project) is greater than twenty-five (25) tons of PM per year, fifteen (15) tons of PM10 per year, forty (40) tons of NOx per year, and seven (7) tons of Sulfuric Acid (H_2SO_4), this source has

elected to limit the potential to emit of this modification. These limits will ensure the increases are less than significant threshold levels, are as follows:

(a) Particulate Matter (PM)

Boilers No.1, No. 2, No. 3, and No. 4

In order to render PSD (Prevention of Significant Deterioration) not applicable, PM emissions from Boilers No. 1, No. 2, and No. 3, combined, shall not exceed a total of 1060.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

In order to render PSD (Prevention of Significant Deterioration) not applicable, PM emissions from Boiler No. 4 shall not exceed 1425.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.11 lb/MMBtu.

Limestone, Gypsum, and Flyash Material Handling

In order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the PM emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	Unloading Station for Barges Baghouse (244)	9.43
Limestone Day Silos No. 1, No. 2, and No. 3, and associated weight scales and conveyance drop points.	Limestone Day Silos Bin Vent Filters (245), (246), (247)	0.96
Flyash Storage Silo	Bin Vent Filter (243)	0.26
Gypsum Dewatering System and Slurry Conveyor	Vent (248)	1.89

(b) Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}).

Boilers No.1, No. 2, No. 3, and No. 4

In order to render Nonattainment NSR not applicable, PM_{10} emissions from Boilers No. 1, No. 2, No. 3, and No. 4, combined, shall not exceed a total of 4,490.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month; PM10 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.08 lb/MMBtu; and, PM10 emissions from Boiler No. 4 shall be less than 0.217 lb/MMBtu.

Limestone, Gypsum, and Flyash Material Handling

In order to render 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)) not applicable, the PM_{10} emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM_{10} Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	Hopper Baghouse (244)	9.43
Limestone Day Silos No. 1, No. 2, and No. 3, and associated weight scales and conveyance drop points.	Limestone Day Silos Bin Vent Filters (245), (246), (247)	0.96
Flyash Storage Silo	Bin Vent Filter (243)	0.26
Gypsum Dewatering System and Slurry Conveyor	Vent (248)	1.89

(c) Nitrous Oxides (NOx)

Boilers No.1, No. 2, No. 3, and No. 4

In order to render PSD (Prevention of Significant Deterioration) not applicable, NOx emissions from Boilers No. 1, No. 2, No. 3, and No. 4 shall not exceed a total of 13,7200.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Y-pit Pump1 and Y-pit Pump2

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(1) The NOx emissions from Y-pit Pump1 and Y-pit Pump2 shall not exceed 15.5 pounds per hour, each.

(2) Y-pit Pump1 and Y-pit Pump2 shall be limited to 10,000 hours of operation, combined, per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) Sulfuric Acid (H_2SO_4):

Boilers No.1, No. 2, No. 3, and No. 4

In order to render PSD (Prevention of Significant Deterioration) not applicable, H_2SO_4 emissions from Boilers No. 1, No. 2, No. 3, and No. 4, combined, shall not exceed a total of 677.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month; H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.016 lb/MMBtu, and, H_2SO_4 emissions from Boiler No. 4 shall be less than 0.0275 lb/MMBtu.

The Permittee has provided information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

Modification No. 2: Rental Diesel Generators (Engine1 and Engine2)

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Units	**Potential to Emit** (ton/yr)					
	PM	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**
Engine1 Engine2	4.15	4.15	8.72	4.81	14.68	< 40.0
PSD Significant Threshold	25	15	40	40	100	40

Note: For each pollutant, emissions are based on the worst case of 2 scenarios.

This modification (Rental Diesel Generators) to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Since this source is considered a major PSD source and a major source under Nonattainment NSR and the unrestricted potential to emit of this modification (Rental Diesel Generators) is greater than forty (40) tons of NOx per year, this source has elected to limit the potential to emit of this modification. These limits, will ensure that the increases are less than significant threshold levels.

(a) The NOx emissions from any rental generator with a rated output capacity equal to or less than six hundred (600) horsepower (hp) shall not exceed 0.60 lb of NOx per gallon of diesel fuel combusted.

(b) The NOx emissions from any rental generator with a rated output capacity greater than six hundred (600) horsepower (hp) shall not exceed 0.43 lb of NOx per gallon of diesel fuel combusted.

(c) The total NOx emissions from the two (2) rental generators (Engine1 and Engine2) shall be less than forty (40.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

NOx Emissions (tons per month) = (A x 0.60 + B x 0.43) / 2000

Where:

A = Diesel fuel usage (gallons) used by generators with a rated capacity less than or equal to six hundred (600) horsepower (hp)

B = Diesel fuel usage (gallons) used by generators with a rated capacity greater than six hundred (600) horsepower (hp)

Federal Rule Applicability Determination

NSPS

(a) 40 CFR, Subpart Db

Boilers No. 1, No. 2, and No. 3 each have a heat input capacity greater than 29 MW (100 million Btu/hr), and were modified after June 19, 1984. Therefore, Boilers No. 1, No. 2, and No. 3 are subject to the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12 and 40 CFR 60, Subpart Db).

Boilers #1, #2, and #3 are subject to the following portions of 40 CFR 60, Subpart Db.

(1) 40 CFR 60.40b(a)
(2) 40 CFR 60.40b(g)
(3) 40 CFR 60.40b(j)
(4) 40 CFR 60.41b
(5) 40 CFR 60.42b(e)
(6) 40 CFR 60.42b(g)
(7) 40 CFR 60.42b(h)
(8) 40 CFR 60.42b (k)(1)
(9) 40 CFR 60.42b (k)(4)
(10) 40 CFR 60.43b(e)
(11) 40 CFR 60.43b(f)
(12) 40 CFR 60.43b(g)
(13) 40 CFR 60.43b(h)
(14) 40 CFR 60.44b(a)
(15) 40 CFR 60.44b(b
(16) 40 CFR 60.44b(c)
(17) 40 CFR 60.44b(h)
(18) 40 CFR 60.44b(i)
(19) 40 CFR 60.44b(l)
(20) 40 CFR 60.45b(a)
(21) 40 CFR 60.45b(b)
(22) 40 CFR 60.45b (c)(1)
(23) 40 CFR 60.45b (c)(2)
(24) 40 CFR 60.45b (c)(3)
(25) 40 CFR 60.45b (c)(4)
(26) 40 CFR 60.45b (c)(5)
(27) 40 CFR 60.45b(f)
(28) 40 CFR 60.45b(g)
(29) 40 CFR 60.45b(h)
(30) 40 CFR 60.45b(i)
(31) 40 CFR 60.46b(a)
(32) 40 CFR 60.46b(b)
(33) 40 CFR 60.46b(c)
(34) 40 CFR 60.46b (d)(7)
(35) 40 CFR 60.46b (e)(1)
(36) 40 CFR 60.46b (e)(2)
(37) 40 CFR 60.46b (e)(3)
(38) 40 CFR 60.46b(j)
(39) 40 CFR 60.47b(a)
(40) 40 CFR 60.47b(c)
(41) 40 CFR 60.47b(d)
(42) 40 CFR 60.47b(e)
(43) 40 CFR 60.48b(b)
(44) 40 CFR 60.48b(c)
(45) 40 CFR 60.48b(d)

(46) 40 CFR 60.48b(e)
(47) 40 CFR 60.48b(f)
(48) 40 CFR 60.48b (j)(1)
(49) 40 CFR 60.48b(k)
(50) 40 CFR 60.49b(a)
(51) 40 CFR 60.49b(b)
(52) 40 CFR 60.49b(d)
(53) 40 CFR 60.49b(f)
(54) 40 CFR 60.49b(g)
(55) 40 CFR 60.49b (h)(1)
(56) 40 CFR 60.49b (h)(2)
(57) 40 CFR 60.49b (h)(3)
(58) 40 CFR 60.49b(i)
(59) 40 CFR 60.49b(j)
(60) 40 CFR 60.49b(k)
(61) 40 CFR 60.49b(l)
(62) 40 CFR 60.49b(n)
(63) 40 CFR 60.49b(o)
(64) 40 CFR 60.49b(v)
(65) 40 CFR 60.49b(w)

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Db.

(b) 40 CFR 60, Subpart OOO

The one (1) limestone hopper, three (3) pipe conveyors, three (3) limestone day silos, three (3) weigh scales, and three wet ball mill crushers comprise a product line for the crushing a non-metallic mineral (limestone) and will be constructed after August 31, 1983. Therefore, they are subject to the requirements of the Standards of Performance for Nonmetallic Mineral Processing Plants (326 IAC 12 and 40 CFR 60, Subpart OOO).

The limestone and coal unloading station for barges and the limestone storage pile are not subject to the requirements of 40 CFR 60, Subpart OOO since they are not directly connected to, or connect by a conveyor, to the crushing equipment.

The limestone and gypsum material handling equipment are subject to the following portions of 40 CFR 60, Subpart OOO.

(1) 40 CFR 60.670(a)
(2) 40 CFR 60.670(d)
(3) 40 CFR 60.670(e)
(4) 40 CFR 60.670(f)
(5) Table 1 to 40 CFR 60, Subpart OOO
(6) 40 CFR 60.671
(7) 40 CFR 60.672
(8) 40 CFR 60.673(b)
(9) 40 CFR 60.675(a)
(10) 40 CFR 60.675(b)
(11) 40 CFR 60.675(c)
(12) 40 CFR 60.675(d)
(13) 40 CFR 60.675(e)
(14) 40 CFR 60.675(f)
(15) 40 CFR 60.675(g)
(16) 40 CFR 60.675 (h)(1)
(17) 40 CFR 60.676(a)

(18) 40 CFR 60.676(f)
(19) 40 CFR 60.676(g)
(20) 40 CFR 60.676(h)
(21) 40 CFR 60.676 (i)(1)
(22) 40 CFR 60.676(j)
(23) 40 CFR 60.670
(24) 40 CFR 60.670
(25) 40 CFR 60.670

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart OOO.

(c) 40 CFR 60, Subpart IIII

The diesel emergency fire pump, Y-pit Pump1, and Y-pit Pump2 are subject to the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII) due to the model year of installation.

The emergency fire pump, Y-pit Pump1, and Y-pit Pump2 are subject to the following portions of 40 CFR 60, Subpart IIII.

(1) 40 CFR 60.4200(a)
(2) 40 CFR 60.4200(d)
(3) 40 CFR 60.4201(a)
(4) 40 CFR 60.4201(d)
(5) 40 CFR 60.4202(a)
(6) 40 CFR 60.4202(d)
(7) 40 CFR 60.4204(a)
(8) 40 CFR 60.4204(b)
(9) 40 CFR 60.4205(a)
(10) 40 CFR 60.4205(b)
(11) 40 CFR 60.4205(c)
(12) 40 CFR 60.4206
(13) 40 CFR 60.4207(a)
(14) 40 CFR 60.4207(b)
(15) 40 CFR 60.4207(c)
(16) 40 CFR 60.4208
(17) 40 CFR 60.4209
(18) 40 CFR 60.4210(a)
(19) 40 CFR 60.4210(b)
(20) 40 CFR 60.4210(c)
(21) 40 CFR 60.4210(d)
(22) 40 CFR 60.4210(e)
(23) 40 CFR 60.4210(f)
(24) 40 CFR 60.4210(g)
(25) 40 CFR 60.4210(i)
(26) 40 CFR 60.4211(a)
(27) 40 CFR 60.4211(b)
(28) 40 CFR 60.4211(c)
(29) 40 CFR 60.4211(e)
(30) 40 CFR 60.4214
(31) 40 CFR 60.4218
(32) CFR 60.4219

Table 1 to Subpart IIII of Part 60

Table 2 to Subpart IIII of Part 60
Table 3 to Subpart IIII of Part 60
Table 4 to Subpart IIII of Part 60
Table 5 to Subpart IIII of Part 60
Table 8 to Subpart IIII of Part 60

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart IIII.

(d) 40 CFR 60, Subpart IIII

The two (2) rental diesel-fired generators are not subject to the requirements of requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), since they not considered stationary engines.

Pursuant to 40 CFR 60.4219, stationary internal combustion engines (ICE) differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition). 40 CFR 1068.30 defines a non-road engine as any internal combustion engine that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

However, 40 CFR 1068.30 also requires that the a non-road engine, as previously defined in the previous paragraph, not remain at a site for more than twelve (12) consecutive months. Any engine (or engines) that replace the engine at a location and that is intended to perform the same or similiar function as the engine replaced will be included in calculating the consecutive time period.

The source has chosen to accept the following limits to ensure the engines meet the definition of nonroad engines:

(1) A rental generator shall remain onsite for a period not to exceed twelve (12) consecutive months.

(2) Any rental generator that replaces a rental generator and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

(e) 40 CFR 60, Subpart Db

Boiler #4 is a steam electric generating unit, as defined by 40 CFR 60.2, since it has a heat input capacity greater than 73 megawatts (250 million Btu/hr), supplies greater than one-third of its potential electric output and greater than 25 MW net-electrical output to a utility power distribution system for sale. Although ugrades will be made to the turbines at Boiler No. 4, the heat input capacity and steam output capacity will not be affected by the modification, and there will not be an increase in emissions from this modification. Therefore, the turbine upgrade does not qualify as a modification pursuant to 40 CFR 60.2 and is not subject to the requirements of the Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 (326 IAC 12 and 40 CFR 60, Subpart Da).

NESHAP

(f) 40 CFR 63, Subpart ZZZZ

The dredge pump engines identified as Engine1 and Engine 2, are nonroad engines, as defined in 40 CFR 1068.30 - General Compliance Provisions for Nonroad Program,

Subpart A—Applicability and Miscellaneous Provisions. Therefore, pursuant to 40 CFR 63.6568(a) the engines are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (326 IAC 20 and 40 CFR Part 63, Subpart ZZZZ).

The emergency fire pump, Y-pit Pump1 and Y-pit Pump2 engines are compression ingition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP. Therefore, pursuant to 63.6590(c), Y-pit Pump1 and Y-pit Pump2 engines shall meet the requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (326 IAC 20 and 40 CFR Part 63, Subpart ZZZZ) by complying with the requirements of 40 CFR 60, Subpart IIII. No further requirements apply for these engines under 40 CFR 63, Subpart ZZZZ.

CAM

(g) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 Major Source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Boilers No. 1, No. 2, and No. 3 (each)							
PM	Wet Scrubber & ESP	Y	> 100 each	> 100 each	100	Y	Y
PM10	Wet Scrubber & ESP	Y	> 100 each	> 100 each	100	Y	Y
SO2	Wet Scrubber	Y	> 100 each	> 100 each	100	Y	Y
NOx	Low NOx Burners	Y	> 100 each	> 100 each	100	Y	Y
CO	None	--	--	--	--	N	--
H2S	None	--	--	--	--	N	--
Lead	--	N	< 10	--	10	N	--
Mercury	--	N	< 10	--	10	N	--
Beryllium	--	N	< 10	--	10	N	--

Boiler No. 4							
PM	Wet Scrubber & ESP	Y	> 100 each	> 100 each	100	Y	Y
PM10	--	N	--	--	--	N	--
SO2	Wet Scrubber	Y	> 100 each	> 100 each	100	Y	Y
NOx	Low NOx Burners	Y	> 100 each	> 100 each	100	Y	Y
CO	None	--	--	--	--	N	--
H2S	--	N	--	--	--	N	--
Lead	--	N	< 10	--	10	N	--
Mercury	--	N	< 10	--	10	N	--
Beryllium	--	N	< 10	--	10	N	--
Misc. Material Handling Equipment Unloading Station for Barges & 3 Limestone Day Storage Silos							
PM	Baghouse or Bin Vent Filters	Y	> 100 each	< 100 each	100	Y	N
PM10		Y	> 100 each	< 100 each	100	Y	N

The requirements of 40 CFR Part 64, CAM are not applicable to the following units, since the uncontrolled potential to emit is less than the major source thresholds for each applicable pollutant emitted and a control device is not used (units are not shown in above table):

- Gypsum dewatering system and slurry conveyor, exhuasting through Vent 248
- One (1) limestone hopper, receiving limestone from the from the limestone stockpiles
- Two (2) diesel-fired pumps, indentified as Y-pit Pump1 and Y-pit Pump2
- Two (2) rental diesel-fired pumps, identified as Engine1 and Engine2
- One (1) diesel emergency firewater pump, identified as 249

The requirements of 40 CFR Part 64, CAM are not applicable to the flyash storage silo since the uncontrolled potential to emit is less than the major source thresholds for each applicable pollutant emitted (unit is not shown in above table).

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the following units, for PM and PM_{10}, upon issuance of the Title V Renewal. The requirements of CAM are applicable because the units each have uncontrolled potential to emit above the major source thresholds for PM and PM_{10}, are subject to an emissions limit for PM [326 IAC 2-2] and PM_{10} [326 IAC 2-1.5-1], and use a control device to comply with the emissions limit. A CAM plan must be submitted as part of the Part 70 Operating permit Renewal application.

- One unloading station for barges, controlled by a baghouse hopper and exhausting through stack 244
- Three (3) limestone day silos, identified as 245, 246, 247

Boilers 1 - 3:
Pursuant to 40 CFR 64.2(b)(1)(vi), the requirements of 40 CFR Part 64 (CAM) shall not apply to emission limitations or standards for which a a Part 70 permit specifies a continuous compliance dertermination method. Since compliance with the PM, SO_2 and NO_X emission limitations in the Part 70 permit is specified to be determined by

continuous emissions monitoring systems (CEMS), CAM is not applicable to Boilers 1-3 for PM, SO_2 and NO_X emissions.

The requirements of 40 CFR Part 64, CAM are not applicable to Boilers 1-3 for CO or H_2S since a control device is not used.

The requirements of 40 CFR Part 64, CAM are not applicable to Boilers 1-3 for lead, mercury, and beryllium, since the uncontrolled potential to emit of each pollutant is less than the major source thresholds.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Boilers 1-3 for PM_{10} upon issuance of this Significant Permit Modification (173-22581-00002). A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Monitoring Approach for PM10 Emissions from Boilers 1 - 3			
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3
I. Indicator Measurement Approach	PM10 Concentration	[1)] Proper Operation of Scrubbers	Proper Operation of Electrostatic Precipitators (ESP)
	Test methods approved by the Commissioner, Scrubbers, and ESPs	i. Scrubber shall maintain a SO2 reduction as determined by inlet and outlet CEMS outlet data	i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets
II. Indicator Range	an excursion is defined as being outside the following: PM10 emission limit of 0.081 lb/MMBtu	an excursion is defined as being outside the following: i. SO2 reduction shall be at least 90%	an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%
III. Performance Criteria	--	Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75	--
A. Data Representativeness	Test methods as approved by Commissioner	Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75	Subject to Instrument Specifications of Section C of permit
B. Verification of Operational Status	N/A	scrubbant flow rate	N/A
C. QA/QC Practices and Criteria	Periodic inspection and maintenance of Boilers per PMP	Periodic inspection and maintenance of scrubbers per PMP	Periodic inspection and maintenance of ESP per PMP
D. Monitoring Frequency	Once every 2 years.	Continuous	Once per day when operating
IV. Data Collection Proceedure	Test methods as approved by Commissioner	Continuous emissions data acquisition system	Daily observations are recorded in log
Averaging Period	Test methods as approved by Commissioner	Six-minute Averages	N/A

Rationale for Selection of Performance Range and Indicators

The performance indicators are proper operation of the scrubbers and electrostatic precipitators (ESPs). In order to demonstrate compliance with PM_{10} emission limits, a stack test will be performed once every two (2) years, during which each test the SO_2 CEMS will be required to maintain 90% SO_2 reduction and the ESP parameters will be monitored. The scrubber will be required to maintain 90% SO_2 reduction at all times, and the ESPs will be required to operate within the parameters (ranges) established during

the stack test, and are subject to periodic inspections and maintenance. Compliance with the 90% reduction in SO2 emissions at the scrubber will demonstrate proper operation of the scrubber.

Boiler 4:
The requirements of 40 CFR Part 64, CAM are not applicable to Boiler 4 for PM_{10} since the are no applicable emission limitations or standards that apply.

Pursuant to 40 CFR 64.2(b)(1)(vi), the requirements of 40 CFR Part 64(CAM) shall not apply to emission limitations or standards for which a a Part 70 permit specifies a continuous compliance dertermination method. Since compliance with the SO_2 and NO_X emission limitations in the Part 70 permit is specified to be determined by a continuous emissions monitoring system (CEMS) of particulate, CAM is not applicable to Boiler 4 for SO_2 and NO_X emissions.

The requirements of 40 CFR Part 64, CAM are not applicable to Boiler 4 for CO since a control device is not used.

The requirements of 40 CFR Part 64, CAM are not applicable to Boiler 4 for lead, mercury, and beryllium, since the uncontrolled potential to emit of each pollutant is less than the major source thresholds.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Boiler 4 for PM upon issuance of this Significant Permit Modification (173-22581-00002). A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Monitoring Approach for PM Emissions from Boiler 4				
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator Measurement Approach	Particulate Concentration	Opacity	[1)] Scrubbers Operational Parameter	Electrostatic Precipitators (ESP)
	Methods approved by the Commissioner, Scrubbers, and ESPs	COM	i. scrubber liquid pH ii. exhaust air stream pressure drop iii. scrubbant flow rate	i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets
II. Indicator Range	Particulate emission limit of 0.228 lb/MMBtu	Pursuant to 326 IAC 5-1 - Opacity Limitations, and IAC 5-1-3 - Tempory Opacity Limitations	an excursion is defined as being outside the following: i. < 8.5 pH ii. 12.0 - 18.0 inches of H2O iii. 250 gallons/ minute	an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%
III. Performance Criteria		Pursuant to 40 CFR, Part 75	--	--
A. Data Representativeness	Methods as approved by Commissioner	Pursuant to 326 IAC 3	Subject to Instrument Specifications of Section C of permit	Subject to Instrument Specifications of Section C of permit
B. Verification of Operational Status	N/A	--	N/A	N/A
C. QA/QC Practices and Criteria	Periodic inspection and maintaince of Boilers per PMP	Pursuant to 326 IAC 3	Periodic inspection and maintenance of scrubbers per PMP	Periodic inspection and maintenance of ESP per PMP
D. Monitoring Frequency	Once every 2.5 years.	6 minute average	Once per day when operating	Once per day when operating
IV. Data Collection Proceedure	Methods as approved by Commissioner	Pursuant to 40 CFR, Part 75	Daily observations are recorded in log	Daily observations are recorded in log

[1)] Scrubbers Operational Parameter - II. Indicator Range, is to be as shown or a value/values established during the most recent stack test.
Note: Boiler 4 is required to operate a COM in accordance with 40 CFR Part 75

Rationale for Selection of Performance Range and Indicators

The performance indicators for the alternative monitoring plan is proper operation of the scrubbers and electrostatic precipitators (ESPs). In order to demonstrate compliance with PM emission limits, the scrubbers and ESPs will stack tested once every two (2) years. These units are then required to operate within the established parameters (ranges) and are subject to periodic inspections and maintaince. The compliance monitoring required will ensure the scrubbers and ESPs are operated in a manner consistant with normal operating conditions at all times.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2, 326 IAC 2-3, and 2-1.1-5 (PSD, Emission Offset, and Nonattainment NOR)
PSD, Emission Offset, and Nonattainment NSR applicability is discussed under the Permit Level Determination – PSD, Emission Offset, and Nonattainment NSR section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
Boiler No. 1, No. 2, No. 3, and No. 4, received all necessary permit and were constructed prior to June 27, 1997, and this modification does not qualify as a reconstruction for the boilers. Therefore, 326 IAC 2-4.1 does not apply to the boilers.

The operation of proposed limestone and gypsum handling equipment will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these units.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the following limitations shall apply:

Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Unloading Station (when handling coal)	1,300	81
Coal storage, handling drop points, crushers, and bunkers	1,300	81
Unloading Station (when handling limestone)	40	42.53
Limestone storage and handling drop points	40	42.53
Limestone wet ball mills	19.7	30.20
Gypsum dewatering	72	48

These limits are determined by the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

When the process weight rate exceeds two hundred (200) tons per hour, the maximum allowable emission may exceed E pounds per hour, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

The three (3) limestone day silos, bin vent filters shall be in operation at all times that limestone transfer and handling system is in operation since these bin vent filters control emissions from the following:

- Three enclosed pipe conveyors, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

- Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

- Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

- Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

The flyash storage silo is not involved in the production of a product. Therefore, the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) do not apply

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Boilers 1 - 3

(1) Boilers No. 1, No. 2, and No. 3 have applicable compliance determination conditions as specified below:

Testing - Boilers 1 -3
Within 60 after achieving maximum capacity, but no later than 180 days after start-up of the final dedicated wet scrubber Boilers No. 1, No. 2, No. 3, and No. 4, the Permittee shall perform testing in accordance with the following:

Emission Unit	Stack ID	Pollutant	Frequency of Testing
Boiler No.1	241-1	PM10 and CO	by December 31 of every second calendar year
Boiler No.1	241-1	H_2SO_4	once every 5 years
Boiler No.2	241-2	PM10 and CO	by December 31 of every second calendar year
Boiler No.2	241-2	H_2SO_4	once every 5 years
Boiler No.3	241-3	PM10 and CO	by December 31 of every second calendar year
Boiler No.3	241-3	H_2SO_4	once every 5 years

Operation of Control Devices
(a) The electrostatic precipitator shall be operated at all times that Boilers No. 1, No. 2, and No. 3 vented to the ESP are in operation.

(b) Except as otherwise provided by statute or rule in this permit, upon start-up of each of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3, the respective dedicated wet scrubber shall be in operation and control emissions from the respective boiler at all times that the boiler is in operation.

Continuous Emissions Monitoring (CEMS)
(a) Upon start-up of each of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3, a continuous emission monitoring systems (CEMS) shall be calibrated, maintained, and operated for measuring sulfur dioxide (SO_2) at the inlet of the respective boiler. The CEMS shall meet all applicable performance specifications of 326 IAC 3-5-2.

The source has chosen to utilize an inlet SO_2 CEMS as a compliance method under 40 CFR 60, Subpart Db.

Alternative Monitoring Plan
(a) Pursuant to Commissioner's Order #2008-01, in lieu of the requirement to monitor opacity at 326 IAC 3-5-1(c)(2)(A), the Permittee shall comply with the following alternative monitoring plan:

(1) Upon initial re-routing of the electrostatic precipitator exhaust from its existing exhaust stack(s) to its scrubber, it will cease to operate with an associated COMS;

(2) Upon scrubber start-up, its associated PM CEMS will also commence operation;

(3) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, compliance with applicable PM and opacity requirements will be assured through monitoring of particulate removal device operating parameters. The Petitioner shall monitor the ability of the electrostatic precipitator (ESP) and the scrubber to control particulate emissions in accordance with the following:

Electrostatic Precipitator

(A) Conduct daily monitoring of the number of Transformer Rectifier (T-R) sets in operation.

(B) Conduct daily monitoring of the primary and secondary voltages and currents of the T-R sets.

(C) Whenever the percentage of T-R sets in service falls below ninety percent (90%), the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

Scrubber

(D) Continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS.

(i) Compliance with this percent SO_2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average basis.

(E) Whenever the SO_2 reduction fall below ninety percent (90%), the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. SO_2 reduction of less than ninety percent (90%) is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(F) The Petitioner shall conduct daily monitoring of the recirculation slurry flow rate.

(G) Whenever the recirculation slurry flow rate falls below 250 gal./hr. or a value established during the latest stack test, the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. Failure

resulting in a recirculation slurry flow rate less than 250 gal./hr is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(4) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, PM CEMS downtime, except for calibration checks, and zero and span adjustments, shall be less than three percent (3%) of the total quarterly operating hours.

(5) Upon successful demonstration of compliance with PS-11, the monitoring described by Condition D.1.15(b)(3) and the PM CEMS downtime provision described by Condition D.1.15(b)(4) will be discontinued, and thereafter, PM compliance will be demonstrated by the associated PM CEMS;

(6) Upon successful completion of the certification of the PM CEMS, the Petitioner shall submit all required information to the IDEM Office of Air Quality; and

(7) Installation, operation, testing, monitoring, data reporting, data substitution, and other requirements for the PM CEMS shall be determined by NSPS, 40 CFR Part 60, Subpart Db and 326 IAC 3-5 (Continuous Monitoring of Emissions).

(3) Boilers No. 1, No. 2, and No. 3 have applicable compliance monitoring conditions as specified below:

<u>Parametric Monitoring - Electrostatic Precipitators</u>

(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets. Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the Electrostatic Precipitators, controlling Boilers 1 - 3, must operate properly in order to ensure compliance with Opacity limits.

<u>Parametric Monitoring - Scrubbers</u>

(a) Upon start-up of each of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3, the Permittee shall comply with the following:

The Permittee shall monitor the pump discharge pressure of the respective dedicated wet scrubber at least once per day when the wet scrubber is in operation. When for any one reading, the pump discharge pressure indicates that the scrubbant flow rate is less than 250 gallons per minute or a value established during the latest stack test, the Permittee shall take reasonable

response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the discharge pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(b) The Permittee shall continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS. Whenever the SO_2 reduction fall below ninety percent (90%), or a value established during the latest stack test, the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances. A SO2 emissions reduction of less than ninety percent (90%), or a value established during the latest stack test, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Compliance with this percent SO2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average.

These monitoring conditions are necessary because the scrubbers, controlling Boilers 1 - 3, must operate properly in order to ensure compliance with Opacity limits, and with PM_{10} limits, which render the requirements of 326 IAC 2-1.5-1 (Nonattainment New Source Review (NSR)) not applicable.

Parametric Monitoring - SO_2 CEMS Downtime
Upon start-up of the wet scrubbers for Boiler No. 1, No. 2, and No. 3, respectively, the following shall apply:

(a) At any time the wet scrubber for Boiler No. 1, No. 2, or No. 3 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

These monitoring requirements are necessary whenever the SO_2 CEMS is down for a period equal to or greater than twenty-four (24) hours to ensure compliance with the SO_2 emission limits in 326 IAC 7-4-10; to ensure compliance with SO_2 and PM emission limits, which render the requirements of 326 IAC 2-2 (PSD) not applicable; and, to ensure compliance with the PM_{10} emission limits, which render the requirements of 326 IAC 2-1.5-1 (Nonattainment New Source Review (NSR)) not applicable.

Parametric Monitoring - PM CEMS Downtime
Whenever a particulate (PM) continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to particulate emissions:

(a) In the event that a breakdown of a PM-CEMS occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.

(b) If a PM-CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(c) Whenever a PM-CEMS is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall comply with the following:

(1) Monitor and record the pH of the scrubbing liquid, scrubber inlet rate, and exhaust air flow rate of the wet scrubber.

(2) Measure and record the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets of the ESP.

(3) Wet scrubber and T-R parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or backup CEMS is brought online

These monitoring requirements are necessary whenever the particulate CEMS is down for a period equal to or greater than twenty-four (24) hours to ensure compliance with Opacity limits, and with PM emission limits, which render the requirement of 326 IAC 2-2 (PSD) not applicable.

Boiler 4

(1) Boiler No. 4 has applicable compliance determination conditions as specified below:

Operation of Control Devices
Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 4, the respective dedicated wet scrubber shall be in operation and control emissions from the respective boiler at all times that the boiler is in operation.

(2) Boiler No. 4 has applicable compliance monitoring conditions as specified below:

Parametric Monitoring - Electrostatic Precipitators
(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets. Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the Electrostatic Precipitators, controlling Boiler 4, must operate properly in order to ensure compliance with PM limits, which render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Parametric Monitoring - Scrubber
Upon start-up of the dedicated wet scrubber for Boiler No. 4, the Permittee shall comply with the following:

(a) The Permittee shall monitor the pH of the scrubbing liquid, exhaust air stream pressure drop and pump discharge pressure of the dedicated wet scrubber for Boiler No. 4 at least once per day when the respective wet scrubber is in operation. When for any one reading, the pH of the scrubbing liquid is less than 8.5 or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pH reading that is greater than 8.5 is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. When for any one reading, the exhaust air stream pressure drop is outside the normal range of 10.0 and 16.0 inches of water or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. When for any one reading, the pump discharge pressure indicates that the scrubbant flow rate is less than 329 gallons per minute or a value established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instruments used for determining the pH, pressure drop and discharge pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

These monitoring conditions are necessary because the scrubber, controlling Boiler 4, must operate properly in order to ensure compliance with PM emission limits, which render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, and with PM_{10} limits, which render the requirements of 326 IAC 2-1.5-1 (Nonattainment New Source Review (NSR)) not applicable.

<u>Parametric Monitoring - SO_2 CEMS Downtime</u>
Upon start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(a) At any time the wet scrubber for Boiler No. 4 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

These monitoring requirements are necessary whenever the SO_2 CEMS is down for a period equal to or greater than twenty-four (24) hours to ensure compliance 326 IAC 7-4-10 (Sulfur Dioxide (SO_2), and with the SO_2 and PM emission limits, which render the requirements of 326 IAC 2-2 (PSD) not applicable, and with PM_{10} limits, which render the requirements of 326 IAC 2-1.5-1 (Nonattainment New Source Review (NSR)) not applicable..

Limestone, Gypsum, and Flyash Material Handling and Processing Equipment

(1) The limestone, gypsum, and flyash material handling and processing units have applicable compliance determination conditions as specified below:

Testing
Within 60 after achieving maximum capacity, but no later than 180 days after start-up of the coal and limestone unloading operations, in order to demonstrate compliance with the PM and PM_{10} limitations, the Permittee shall conduct PM and PM_{10} performance testing for stack 244. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Operation of Control Devices

(a) Except as otherwise provided by statute or rule or in this permit, the watering system for the coal storage and limestone storage piles shall be in operation and control emissions as needed when coal is being unloaded.

(b) Except as otherwise provided by statute or rule or in this permit, the dust collectors for particulate control shall be in operation and control emissions at all times the associated coal processing or conveyors are in operation.

(c) Except as otherwise provided by stature or rule or in this permit, the bin vent filters and the hopper baghouse for particulate control shall be in operation and control emissions at all times the associated limestone weighing, storage or conveyors are in operation.

(d) Except as otherwise provided by stature or rule or in this permit, the bin vent filters for particulate control shall be in operation and control emissions at all times the associated flyash is being loaded into the flyash silo.

(e) Except as otherwise provided by statute or rule or in this permit, the rotoclones for particulate control shall be in operation and control emissions at all times the associated coal bunkers are in operation.

(f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(2) The limestone, gypsum, and flyash material handling and processing units have applicable compliance monitoring conditions as specified below:

Visible Emissions (VEs)
Visible emission notations of the coal and limestone unloading station baghouse exhaust, coal and limestone drop points, coal and limestone transfer point exhausts, and coal crusher shall be performed once per day during normal daylight operations. A trained employee shall record whether any emissions are observed. Visible emission notations of the coal bunkers, coal scale , the limestone day silos bin vent exhausts (245, 246, 247), and the flyash storage silo bin vent exhaust (243) shall be performed once per week during normal daylight operations. A trained employee shall record whether any emissions are observed. For processes operated continuously, "normal" means those

conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. If abnormal emissions are observed from the coal unloading station drop points, coal transfer station exhausts, coal crusher, coal bunker, or coal scale, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Visible emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Baghouse Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the coal and limestone unloading station, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the bin vent filters used in conjunction with each of the three (3) limestone day silos exhaust vents (245, 246, 247) at least once per week when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, (and local agency if applicable) and shall be calibrated at least once every six (6) months.

(d) In the event that bag failure has been observed:

(1) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(2) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material

in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the hopper baghouse, controlling the unloading station for barges, the bin vent filters, controlling the limestone day silos, weigh scales, and wet ball mill crushers, must operate properly in order to ensure compliance with 326 IAC 6-3-2, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.5-1 (Nonattainment NSR) not applicable.

Y-pit Pump1, Y-pit Pump2, Rental Diesel Generators, and Diesel Emergency Firewater Pump

(1) These engines do not have applicable compliance determination or monitoring conditions.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T173-6630-00002. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

IDEM Change No. 1:

The source has provided the following updates to their addresses:

Source Address: ~~Junction State Routes 66 and 61, Newburgh, Indiana 47630~~ **4700 Darlington Road, Newburgh, Indiana 47630**
Mailing Address: ~~4700 Darlington Road, Newburgh, Indiana 47630~~ **Building 860E, P.O. Box 10, Newburgh, Indiana, 47630-0010**

IDEM Change No. 2:

IDEM, OAQ has determined that it is not necessary to list the Responsible Official name or title in Section A.1, Section A.1, General Information, of the permit. However, OAQ will still be evaluating if a change in RO meets the criteria specified in 326 IAC 2-7-1(34).

On August 7, 2006, a temporary emergency rule took effect redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate these changes into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 took effect on October 25, 2006.

The applicability of the state nonattainment NSR program, 326 IAC 2-3 (Emission Offset), relies on the attainment designations in 326 IAC 1-4. Therefore, with regards PM2.5, IDEM will rely on 326 IAC 2-1.1-5(a)(1) to apply minor limits to remain below the nonattainment NSR thresholds. 326 IAC 2-1.1-5(a)(1) clarifies that IDEM can not issue a permit or modification that will cause or contribute to a violation of the National Air Quality Standards (NAAQS). Section A.2 and various conditions throughout the D Sections have been revised.

Condition A.1 has been revised as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(21)]

The Permittee owns and operates a stationary electric utility generating station.

Source Address:	~~Junction State Routes 66 and 61, Newburgh, Indiana 47630~~ **4700 Darlington Road, Newburgh, Indiana 47630**
Mailing Address:	~~4700 Darlington Road, Newburgh, Indiana 47630~~ **Building 860E, P.O. Box 10, Newburgh, Indiana, 47630-0010**
Source Telephone:	(812) 842-3301
SIC Code:	4911
County Location:	Warrick
Source Location Status:	Nonattainment for PM2.5 ~~and Ozone under 8-hour standards~~ Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and ~~Emission Offset Rules~~ **Nonattainment NSR** Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

IDEM Change No. 3:

All references to IDEM, OAQ's mailing address have been revised as follows:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana **46204-2251**

And/Or

Indiana Department of Environmental Management
Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana **46204-2251**

And/Or

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana **46204-2251**

And/Or

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana **46204-2251**

And/Or

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana **46204-2251**

And/Or

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana **46204-2251**

IDEM Change No. 4:

All references to the IDEM, OAQ, Compliance Section telephone number have been revised as follows: ~~317-233-5674~~ **317-233-0178**.

All references to the IDEM, OAQ, Compliance Section facsimile number have been revised as follows: ~~317-233-5967~~ **317-233-6865**.

IDEM Change No. 5:

The last sentence of original Condition C.3 – Open Burning, was deleted because the provisions of 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (b) are federally enforceable and are included in Indiana's State Implementation Plan (SIP).

IDEM Change No. 6:

The last sentence of original Condition C.4 – Incineration, was deleted because the provisions of 326 IAC 9-1-2 are federally enforceable and are included in Indiana's State Implementation Plan (SIP).

IDEM Change No. 7:

The clean unit provisions of the U.S. EPA's New Source Review Reform Rules were vacated on June 24, 2005 by a United States Court of Appeals for the District of Columbia Circuit decision. Additionally, on January 22, 2008 U.S. EPA promulgated a rule to address the remand, by the U.S. Court of Appeals for the District of Columbia on June 25, 2005, of the reasonable possibility provisions of the December 31, 2002 major NSR reform rule. IDEM has agreed, with U.S. EPA, to interpret "reasonable possibility" in 326 IAC 2-2 and 326 IAC 2-3 consistent with the January 22, 2008 U.S. EPA rule. To implement this interpretation, IDEM is revising Section C - General Record Keeping Requirements and Section C - General Reporting Requirements.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

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* * *

(c) If there is a reasonable possibility **(as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b))** that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing

~~major source~~ **emissions unit,** other than projects at a ~~Clean Unit (or at a~~ source with Plantwide Applicability Limitation (PAL)~~)~~**,** which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) ~~may result in significant emissions increase~~ and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

* * *

IDEM Change No. 8:

Boilers No. 1, No. 2, No. 3, No. 4, and the Emergency Rolling Mill Boiler would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Supbart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Supbart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.

Conditions throughout the D Sections of the permit, which contain the requirements of 40 CFR 63, Subpart DDDDD, and all references to 40 CFR 63, Subpart DDDDD have been removed.

IDEM Change No. 9:

On March 3, 2003, U.S.EPA published a notice for “Conditional Approval of Implementation Plan: Indiana” in the Federal Register / Vol. 68, No.41 at pages 9892 through 9895. This notice grants conditional approval to the PSD State Implementation Plan (SIP) under provisions of 40 CFR §51.166 and 40 CFR §52.770 while superceding the delegated PSD SIP authority under 40 CFR §52.793. The effective date for these provisions is April 2, 2003. Therefore, the PSD permits will be issued under the authority of 326 IAC 2-2 and will no longer be issued under the provision of 40 CFR 52.21 and 40 CFR 124.

Conditions throughout the D Sections of the permit have been modified to remove the references to 40 CFR 52.

IDEM Change No. 10:

With regards to record keeping requirements for visible emission notations (and other parametric monitoring), the intent is that the Permittee needs to make a record of some sort every day. So if they do the VE observation, then they write down normal or abnormal. Additionally, if they don’t do the VE observation, they still need to make some sort of record that day as to why they didn’t, such as the unit was not operating, or the unit was venting indoors that day, etc. In order to attempt to clarify the requirements, the recordkeeping requirements, contained throughout the D Sections of the permit, relating the VEs and other daily parametric monitoring have been revised.

IDEM modified Sections B and C:

The following changes have been made to Sections B and C of Part 70 Operating Permit No. T173-6630-00002:

~~**SECTION B GENERAL CONDITIONS**~~

~~B.1 Definitions [326 IAC 2-7-1]~~

~~Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.~~

~~B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)][IC 15-13-6(a)]~~

~~(a) This permit, T173-6630-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).~~

~~(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.~~

~~B.3 Enforceability [326 IAC 2-7-7]~~

~~Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.~~

~~B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]~~

~~The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).~~

~~B.5 Severability [326 IAC 2-7-5(5)]~~

~~The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.~~

~~B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]~~

~~This permit does not convey any property rights of any sort, or any exclusive privilege.~~

~~B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]~~

~~(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.~~

~~(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.~~

~~B.8 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. One (1) certification may cover multiple forms in one (1) submittal.~~

~~(c) A responsible official is defined at 326 IAC 2-7-1(34).~~

~~B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]~~

~~(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

~~(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:~~

~~(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;~~

~~(2) The compliance status;~~

~~(3) Whether compliance was continuous or intermittent; and~~

~~(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3).~~

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

~~B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]~~

~~(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:~~

~~(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~~
~~Indianapolis, Indiana 46204-2251~~

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

~~(b) 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 is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(c) To the extent the Permittee is required by 40 CFR Part 63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.~~

~~B.11 Emergency Provisions [326 IAC 2-7-16]~~

~~(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, 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: 317-233-0178 (ask for Compliance Section)~~

~~Facsimile Number: 317-233-6865~~

~~(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~~
~~Indianapolis, Indiana 46204-2251~~

~~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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ , may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) 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.~~

~~(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.~~

~~B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]~~

~~(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed~~

~~compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.~~

~~This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.~~

~~(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.~~

~~(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.~~

~~(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:~~

~~(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;~~

~~(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;~~

~~(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and~~

~~(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.~~

~~(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).~~

~~(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]~~

~~(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]~~

~~B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]~~

~~(a) All terms and conditions of permits established prior to T173-6630-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either~~

~~(1) incorporated as originally stated,~~

~~(2) revised under 326 IAC 2-7-10.5, or~~

~~(3) deleted under 326 IAC 2-7-10.5.~~

~~(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).~~

~~B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]~~

~~(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Data Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.~~

~~The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.~~

~~B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]~~

~~(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:~~

~~(1) That this permit contains a material mistake.~~

~~(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.~~

~~(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]~~

~~(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this~~

~~permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]~~

~~(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]~~

~~B.16 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]~~

~~(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~Request for renewal shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~(b) A timely renewal application is one that is:~~

~~(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and~~

~~(2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.~~

~~B.17 Source Modification Requirements [326 IAC 1-2-42] [326 IAC 2-7-10.5] [326 IAC 2-2-2][326 IAC 2-3-2]~~

~~(a) The Permittee shall obtain approval as required by 326 IAC 2-7-10.5 from the IDEM, OAQ prior to making any modification to the source. Pursuant to 326 IAC 1-2-42, "Modification" means one (1) or more of the following activities at an existing source:~~

~~(1) A physical change or change in the method of operation of any existing emissions unit that increases the potential to emit any regulated pollutant that could be emitted from the emissions unit, or that results in emissions of any regulated pollutant not previously emitted.~~

~~(2) Construction of one (1) or more new emissions units that have the potential to emit regulated air pollutants.~~

~~(3) Reconstruction of one (1) or more existing emission units that increases the potential to emit of any regulated air pollutant.~~

~~(b) Any application requesting a source modification 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 shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(c) The Permittee shall also comply with the applicable provisions of 326 IAC 2-7-11 (Administrative Permit Amendments) or 326 IAC 2-7-12 (Permit Modification) prior to operating the approved modification.~~

~~(d) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.~~

~~B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]~~

~~(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) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]~~

~~(c) 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~~
~~Indianapolis, Indiana 46204-2251~~

~~Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(d) 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)]~~

~~B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]~~

~~(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.~~

~~(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.~~

~~B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]~~

~~(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:~~

~~(1) The changes are not modifications under any provision of Title I of the Clean Air Act;~~

~~(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;~~

~~(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);~~

~~(4) The Permittee notifies the:~~

~~Indiana Department of Environmental Management~~

~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

~~in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and~~

~~(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.~~

~~Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).~~

~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(c) Emission Trades [326 IAC 2-7-20(c)]~~
~~The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c). The notification requirement per (a)(4) of this condition does not apply to emission trades of SO2 or NOX under 326 IAC 21 or 326 IAC 10-4.~~

~~(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]~~
~~The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.~~

~~(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.~~

~~(f) This condition does not apply to emission trades of SO2 or NOx under 326 IAC 21 or 326 IAC 10-4.~~

~~B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1]~~

~~Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:~~

~~(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;~~

~~(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;~~

~~(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;~~

~~(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and~~

~~(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.~~

~~B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]~~

~~(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.~~

~~(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit~~

~~responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~The application which shall be submitted by the Permittee does require the certification 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)]~~

~~B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]~~

~~(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.~~

~~(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.~~

~~(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.~~

~~B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]~~

~~For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.~~

~~B.25 Term of Conditions [326 IAC 2-1.1-9.5]~~

~~Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:~~

~~(a) The condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or~~

~~(b) The emission unit to which the condition pertains permanently ceases operation.~~

~~SECTION C SOURCE OPERATION CONDITIONS~~

~~**Entire Source**~~

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

~~C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]~~

~~Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and~~

~~the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.~~

~~C.2 Opacity [326 IAC 5-1]~~

~~Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:~~

~~(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.~~

~~(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.~~

~~C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]~~

~~The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.~~

~~C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]~~

~~The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.~~

~~C.5 Fugitive Dust Emissions [326 IAC 6-4]~~

~~The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.~~

~~C.6 Motor Vehicle Fugitive Dust Sources [326 IAC 6-4-4]~~

~~Pursuant to 326 IAC 6-4-4, no vehicle shall be driven or moved on any public street, road, alley, highway, or other thoroughfare, unless such vehicle is so constructed as to prevent its contents from dripping, sifting, leaking, or otherwise escaping therefrom so as to create conditions which result in fugitive dust. This section applies only to the cargo any vehicle may be conveying and mud tracked by the vehicle.~~

~~C.7 Stack Height [326 IAC 1-7]~~

~~The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.~~

~~C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]~~

~~The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.~~

~~Testing Requirements [326 IAC 2-7-6(1)]~~

~~C.9 Performance Testing [326 IAC 3-6] [326 IAC 2-7-6(1)]~~

~~(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.~~

~~A test protocol, except as provided elsewhere in this permit, shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Data Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.~~

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

~~C.10 Compliance Requirements [326 IAC 2-1.1-11]~~

~~The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. 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.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)~~

~~Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:~~

~~Indiana Department of Environmental Management~~
~~Compliance Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.~~

~~The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.~~

~~C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]~~

~~(a) The Permittee shall calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.~~

~~(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.~~

~~(c) In the event that a breakdown of a COMS occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.~~

~~(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractors, to~~ self-monitor the emissions from the emission unit stack.

~~(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.~~

~~(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is in operation.~~

~~(3) Method 9 readings may be discontinued once a COMS is online.~~

~~(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.~~

~~(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5.~~

~~C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]~~

~~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.~~

~~C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]~~

~~(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.~~

~~(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.~~

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

~~C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]~~

~~Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):~~

~~(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 14, 1996.~~

~~(b) Upon direct notification by IDEM, OAQ , that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]~~

~~C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]~~

~~If a regulated substance as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements at 40 CFR 68.~~

~~C.17 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]~~

~~(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit(s) (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.~~

~~(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:~~

~~(1) initial inspection and evaluation;~~

~~(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or~~

~~(3) any necessary follow up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.~~

~~(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:~~

~~(1) monitoring results;~~

~~(2) review of operation and maintenance procedures and records; and~~

~~(3) inspection of the control device, associated capture system, and the process.~~

~~(d) Failure to take reasonable response steps shall be considered a deviation from the permit.~~

~~(e) The Permittee shall maintain the following records:~~

~~(1) monitoring data;~~

~~(2) monitor performance data, if applicable; and~~

~~(3) corrective actions taken.~~

~~C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]~~

~~(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~

~~(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.~~

~~(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.~~

~~The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

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

~~C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]~~

~~(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:~~

~~(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);~~

~~(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.~~

~~The emission statement must be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Technical Support and Modeling Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b) The emission statement 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.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6][326 IAC 2-2][326 IAC 2-3]~~

~~(a) Records of all required monitoring data, reports and support information required by this permit 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 physically present~~

~~or electronically accessible 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) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing major source other than projects at a Clean Unit (or at a source with Plant wide Applicability Limitation (PAL)) which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC~~ 2 2 1 (rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

~~(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1(ll)) at an existing emission unit, document and maintain the following records:~~

~~(A) A description of the project;~~

~~(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;~~

~~(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:~~

~~(i) Baseline actual emissions;~~

~~(ii) Projected actual emissions;~~

~~(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and~~

~~(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.~~

~~(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in (1)(B) above; and~~

~~(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.~~

~~C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11][326 IAC 2-2][326 IAC 2-3]~~

~~(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period.~~

~~The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b) The report required in (a) of this condition and 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~~
~~Indianapolis, Indiana 46204-2251~~

~~(c) 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.~~

~~(d) 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).~~

~~(e) 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, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.~~

~~(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:~~

~~(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C General Record Keeping Requirements~~

~~(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (c)(2) and (3) in Section C General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.~~

~~Reports required in this part shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Air Compliance Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~(g) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit other than Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:~~

~~(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C General Record Keeping Requirements exceed the baseline actual~~

~~emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and~~

~~(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).~~

~~(h) The report for project at an existing emissions unit other than Electric Utility Steam Generating Unit shall be submitted within sixty (60) days after the end of the year and contain the following:~~

~~(1) The name, address, and telephone number of the major stationary source.~~

~~(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C General Record Keeping Requirements.~~

~~(3) The emissions calculated under the actual to projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).~~

~~(4) Any other information that the Permittee deems fit to include in this report,~~

~~Reports required in this part shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Air Compliance Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~(i) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.~~

~~Stratospheric Ozone Protection~~

~~C.22 Compliance with 40 CFR 82 and 326 IAC 22-1~~

~~Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:~~

~~(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.~~

~~(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.~~

~~(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.~~

~~(d) Pursuant to 40 CFR 82, Subpart E (The Labeling of Products Using Ozone-Depleting Substances), all containers in which a Class I or Class II substance is stored or transported and all products containing a Class I substance shall be labeled as required under 40 CFR Part 82.~~

~~**Ambient Monitoring Requirements [326 IAC 7-3]**~~

~~C.23 Ambient Monitoring [326 IAC 7-3]~~

~~(a) The Permittee shall operate a continuous ambient sulfur dioxide air quality monitor and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).~~

~~(b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]~~

~~(c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]~~

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T173-6630-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 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 the "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. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(b) 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 is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(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, and 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: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) 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.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T173-6630-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

(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) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

(c) 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2] [326 IAC 2-3]

(a) The Permittee shall obtain approval as required by 326 IAC 2-7-10.5 from the IDEM, OAQ prior to making any modification to the source. Pursuant to 326 IAC 1-2-42, "Modification" means one (1) or more of the following activities at an existing

source:

(1) A physical change or change in the method of operation of any existing emissions unit that increases the potential to emit any regulated pollutant that could be emitted from the emissions unit, or that results in emissions of any regulated pollutant not previously emitted.

(2) Construction of one (1) or more new emissions units that have the potential to emit regulated air pollutants.

(3) Reconstruction of one (1) or more existing emission units that increases the potential to emit of any regulated air pollutant.

(b) Any application requesting a source modification shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee shall also comply with the applicable provisions of 326 IAC 2-7-11 (Administrative Permit Amendments) or 326 IAC 2-7-12 (Permit Modification) prior to operating the approved modification.

(d) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification 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)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Motor Vehicle Fugitive Dust Sources [326 IAC 6-4-4]

Pursuant to 326 IAC 6-4-4, no vehicle shall be driven or moved on any public street, road, alley, highway, or other thoroughfare, unless such vehicle is so constructed as to prevent its contents from dripping, sifting, leaking, or otherwise escaping therefrom so as to create conditions which result in fugitive dust. This section applies only to the cargo any vehicle may be conveying and mud tracked by the vehicle.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326

IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. 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.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated

within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

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

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) **The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.**

(b) **All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.**

(c) **In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.**

(d) **Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.**

(1) **Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.**

(2) **Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.**

(3) **Method 9 readings may be discontinued once a COMS is online.**

(4) **Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.**

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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.

C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 14, 1996.

(b) Upon direct notification by IDEM, OAQ , that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.17 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2 6 4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

The emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(b) The emission statement 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.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible 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) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2][326 IAC 2-3]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) 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.

(d) 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).

(e) 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, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:

(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C- General Record Keeping Requirements

(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (d)(1) and (2) in Section C- General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Ambient Monitoring Requirements [326 IAC 7-3]

C.23 Ambient Monitoring [326 IAC 7-3]

(a) The Permittee shall operate a continuous ambient sulfur dioxide air quality monitor and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).

(b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]

(c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

Modification No. 1:

The emission unit descriptions in Section A.2 and the corresponding Sections D.1, D.2, D.3, D.4, and E.1 have, been modified to reflect the modifications to existing units and stack configurations, and the addition of new emission units and control devices. The revised Section A.2 is shown below, and the revised Sections D.1 through D.4 are shown as part of Modifications No. 2 through No. 6.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

~~(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241. Boiler No. 1 was configured with a low NOX burner and over-fire air in 2003. Boiler No. 1 vents to stack 241, .which has continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 1 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NOx burner and over-fire air in 2003. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 1 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

~~(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241 and stack 242. Boiler No. 2 was configured with a low NOX burner and over-fire air in 2004. Boiler No. 2 vents to stacks 241 and 242. Both stacks have continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 2 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NOx burner and over-fire air in 2004. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 2 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

~~(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 242. Boiler No. 3 was configured with a low NOX burner and over-fire air in 2002. Boiler No. 3 vents to stack 242 which has continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 3 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NOx burner and over-fire air in 2002. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).

Note: Boiler No. 3 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

~~(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with a nominal heat input capacity of 2,958 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 243. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

(d) **One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of particulate matter. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet scrubber with lime injection began in 2005. Upon start-upon of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from stack 243 to stack 242, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).**

This unit is not an affected facility under NSPS Da because it did not commence construction, modification, or reconstruction after September 18, 1978, or under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984. The low NOx burner constructed in 1998 and the SCR system constructed in 2004 do not qualify as modifications as defined by 40 CFR 60, Subpart A. Specifically, the physical change did not result in increased to the atmosphere of any air pollutant (to which a standard applies) or result in any air pollutant not previously emitted.

(e) One (1) gas-fired boiler, identified as Emergency Rolling Mill Boiler, constructed in 1979, with a nominal heat input capacity of 79 million Btu per hour (MMBtu/hr) and exhausting to stack 242.

This unit is not an affected facility under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984.

(f) **One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2008 in order to accommodate the transfer of limestone. The unloading station is not considered an affected facility under 40 CFR 60, Subpart OOO when unloading and transferring limestone because it is not physically connected to the crushing/grinding operations.**

~~(f)~~**(g)** A coal transfer system, constructed prior to 1974, with a nominal throughput of 1,300 tons of coal per hour, consisting of the following equipment:

(1) One (1) unloading station for trucks, adjacent to the 211 railcar dumper, with a drop point to an underground conveyor, with the drop point, identified as DP-1, equipped with wet suppression, and exhausting to the ambient air.

~~(2) One (1) unloading station for barges, consisting of a clamshell bucket that transfers coal from the barge to a conveyor, with a drop point to a hopper used for loading trucks, with the drop point, identified as DP-2, uncontrolled and exhausting to the ambient air.~~

~~(3)~~**(2)** The 211 rail car dumper, with an enclosed drop point to an underground conveyor, with the drop point, identified as DP-3, equipped with wet suppression and exhausting to the ambient air.

~~(4)~~**(3)** One (1) 9.0 acre coal storage pile, having an estimated storage capacity of 300,000 tons, with fugitive emissions controlled by periodic watering by truck, and exhausting to the ambient air.

~~(5)~~**(4)** The 210H truck hopper, with a drop point a coal storage pile identified as F-1, with the drop point equipped with wet suppression and exhausting to the ambient air.

~~(6)~~**(5)** Multiple loading stations for trucks, with drop points to a coal storage pile, identified as F-1, uncontrolled and exhausting to the ambient air.

~~(7)~~**(6)** Enclosed conveyor (4), with a drop point to the F-1 coal pile stacking tower, uncontrolled and exhausting to the ambient air.

~~(8)~~**(7)** Enclosed conveyors 5 and 5A with each transfer point enclosed.

~~(9)~~**(8)** Four (4) coal bunkers. Bunkers are loaded via a conveyor tripper system servicing Boilers No. 1, No. 2, No. 3 and No. 4. Particulate matter generated from loading bunkers is controlled by rotoclones and exhausts to the ambient air.

~~(10)~~**(9)** One (1) enclosed coal crusher, constructed in 1960, with each transfer point equipped with wet suppression, and exhausting to the ambient air.

~~(11)~~**(10)** Two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor, permitted in 2001, but not yet constructed, uncontrolled and exhausting to the ambient air.

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of 40 tons, with fugitive emissions controlled by periodic watering by truck. Under 40 CFR 60, Subpart OOO, this is not an affected unit since it is not directly connected to the product line of the nonmetallic mineral processing plant.

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) Three enclosed pipe conveyors, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

Under 40 CFR 60, Subpart OOO, the one (1) limestone hopper, three (3) pipe conveyors, three (3) limestone day silos, three (3) weigh scales, and three (3) wet ball mill crushers are considered affected units.

(i) One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through stack 243.

(j) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2008, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere. Under 40 CFR 60, Subpart OOO, this unit is not considered an affected unit.

(k) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2008, each with a rated capacity of 500 horsepower, located at the Y-pit for the purpose of removing rainwater. Under 40 CFR 60, Subpart IIII, Y-pit pumps No. 1 and No. 2 are considered to be stationary internal combustion engines.

(l) Two (2) rental diesel generators that shall not exceed 775 hp each, approved for construction in 2008, identified as Engine1 and Engine2. Pursuant to 40 CFR 60.1068, the rental diesel generators are considered nonroad engines. Therefore, under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, the engines are not affected units.

Note: These generators will be installed on an as-needed basis.

(m) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2008, rated at 465 horsepower, using no controls. Under 40 CFR 60, Subpart IIII, the diesel emergency firewater pump engine is considered to be stationary internal combustion engine.

Modification No. 2:

The following revisions have been made to Section D.1:

- Original Conditions D.1.1 and D.1.2, which require the Permittee to comply with the applicable requirements of 40 CFR 63, Subpart DDDDD, on and after September 13, 2007, have been removed; original Condition D.1.21, which required the Permittee to submit notifications pursuant to 40 CFR 63, Subpart DDDDD, has been removed; and, original Condition D.1.22, which required the Permittee to submit a significant permit modification to incorporate the applicable requirements of 40 CFR 63, Subpart DDDDD, has been removed.

- A new Condition D.1.1 - PSD Minor Limit [326 IAC 2-2] has been added to incorporate limits necessary to ensure to the PM, NOx, and H_2SO_4 emissions from this modification remain below the significant emissions thresholds. Since a PM CEMS will be installed on Boilers No. 1, No. 2, and No. 3, a short term limit is not required for the PM emission limit. A NOx CEMS currently exist on Boilers No. 1, No. 2, and No. 3; therefore, a short term limit for NOx will not be required.

A H_2SO_4 limit was established across Boilers No. 1, No. 2, No. 3, and No. 4, and a short term lb H_2SO_4/MMBtu for Boilers No. 1, No. 2, and No. 3 was established as part of Condition D.1.1(c). A short term lb H_2SO_4/MMBtu for Boiler No. 4 was established in Condition D.2.1(c).

- A new Condition D.1.2 - Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5] has been added to ensure the PM_{10} emissions increase from this modification remains below the significant emissions threshold. A PM_{10} limit was established across Boilers No. 1, No. 2, No. 3, and No. 4, and a short term lb PM_{10}/MMBtu for Boilers No. 1, No. 2, and No. 3 was established as part of Condition D.1.2. A short term lb PM_{10}/MMBtu for Boiler No. 4 was established in Condition D.2.2.

- Pursuant to 326 IAC 6-2-1(f), if any limit established under 326 IAC 6-2 is inconsistent with applicable limitations contained in 326 IAC 12 concerning new source performance standards, then the limitations contained in 326 IAC 12 prevail. Boilers No. 1, No. 2, and No. 3 will be subject to 40 CFR 60, Subpart Db - New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units, which is incorporated by reference in 326 IAC 12. Therefore, the former Condition D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3] will no longer be applicable once the boilers become subject to 40 CFR 60, Subpart Db. Condition D.1.3 has been revised to reflect this and the new stack configurations.

- The CO emissions limit, Condition D.1.6, has been modified to reflect the stack configurations during and after the phased startup of the three (3) wet scrubbers. The overall tons per year of CO will not increase; however, the lb/MMBtu emission limit has been adjusted to accommodate the increased rated capacity of the Boilers No. 1, No. 2, and No. 3. The adjusted lb/MMBtu limit was calculated as follows:

  0.01 lb CO/MMBtu = 2099.80 tons CO/year / (1589 MMBtu/hr each Boiler x 3 Boilers x 8760 hrs/yr x 1/2000 lb/ton)

- Condition D.1.11 - Testing Requirements, has been modified to require testing for CO within 180 days of start-up of each wet scrubber. Additionally, testing is required for PM_{10}, and H_2SO_4 within 180 days of start-up of the final wet scrubber for Boilers No. 1, No. 2, No. 3, and No. 4. Since, the stacks will be equipped with continuous emissions monitoring systems (CEMS) for measuring particulate matter (PM), the requirement to test for PM is no longer necessary and has been removed.

- New Condition, D.1.14 - Operation of Wet Scrubbers, which requires operation of the wet scrubbers at all times the respective boiler is in operation, is necessary to demonstration compliance with the PM_{10} limits for Boilers No. 1, No. 2, and No. 3.

- Condition D.1.15 - Continuous Emissions Monitoring has been modified as follows:

  - D.1.15(a) includes a new requirement to calibrate, maintain, and operate a continuous emissions monitoring system for SO_2 at the inlet of each scrubber. This requirement is necessary to determine the percent SO_2 reduction at each scrubber.
  - New Condition D.1.15(b) contains the requirements of Commissioner's Order #2008-01. Commissioner's Order # 2008-01 provides for an alternative monitoring plan, in lieu of a COM as a method of demonstrating compliance with PM and opacity limitations.

- New Condition, D.1.18 - Wet Scrubbers, has been added and specifies compliance monitoring for the wet scrubbers necessary to comply with PM_{10} limitations.

- Condition D.1.20 (formerly D.1.18) - SO_2 Monitoring System Downtime has been modified to included monitoring requirements applicable upon start-up of the wet scrubbers. Additionally, language has been added to the original monitoring requirements to signify that they will cease to

be effective upon start-up of the wet scrubbers and the new associated downtime monitoring requirements.

- New Condition, D.1.21 - Particulate Monitoring System Downtime, has been added to provide methods to demonstrate compliance with the Opacity and PM limitations when the particulate CEMS is down and not in operation.

- New Condition D.1.22 - Compliance Assurance Monitoring (CAM) has been added and contains the CAM plan for PM_{10} for Boilers No. 1, No. 2, and No. 3.

- Condition D.1.23 (formerly D.1.19) - Record Keeping Requirements has been modified to include record keeping requirements associated with new emissions limits, and revised and new compliance determination and monitoring requirements.

- Condition D.1.24 (formerly D.1.20) - Reporting Requirements has been modified to reflect changes made to emissions limits, and compliance determination and monitoring requirements in Section D.1.

- New Conditions D.1.25 and D.1.26 contain the requirements of 40 CFR 60, Subpart A - General Provisions and the applicable requirements of 40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

Section D.1 has been revised as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS - Three (3) Coal-Fired Boilers (Boiler No. 1, Boiler No. 2, Boiler No. 3)

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

~~(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241. Boiler No. 1 was configured with a low NOX burner and over-fire air in 2003. Boiler No. 1 vents to stack 241, .which has continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 1 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

~~(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 241 and stack 242. Boiler No. 2 was configured with a low NOX burner and over-fire air in 2004. Boiler No. 2 vents to stacks 241 and 242. Both stacks have continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 2 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

~~(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 242. Boiler No. 3 was configured with a low NOX burner and over-fire air in 2002. Boiler No. 3 vents to stack 242 which has continuous emissions monitors (CEMs) for nitrogen oxides (NOX), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 3 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

(a) **One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced on July 26, 1956, with an on-line date of April 1960, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 241. Boiler No. 1 was configured with a low NOx burner and over-fire air in 2003. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 1 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 1 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 241 to a new Stack 241-1, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).**

Note: Boiler No. 1 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(b) **One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced on July 26, 1956, with an on-line date of January 1964, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stacks 241 and 242. Boiler No. 2 was configured with a low NOx burner and over-fire air in 2004. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 2 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 2 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stacks 241 and 242 to a new Stack 241-2, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).**

Note: Boiler No. 2 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(c) **One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced on July 26, 1956, with an on-line date of October 1965, with a nominal heat input capacity of 1,357 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter and exhausting to Stack 242. Boiler No. 3 was configured with a low NOx burner and over-fire air in 2002. Construction of a dedicated wet scrubber with lime injection for control of particulate and sulfur dioxide, and modifications to Boiler No. 3 began in 2005. Upon start-up of the dedicated wet scrubber, Boiler No. 3 will have a nominal heat input capacity of 1,589 MMBtu/hr, and the exhaust will be re-routed from Stack 242 to a new Stack 241-3, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), sulfur dioxide (SO_2), and particulate matter (PM).**

Note: Boiler No. 3 is capable of burning non-hazardous waste from the power plant and Alcoa Inc. - Warrick Operations (Plt. ID 173-00007) including: scrap cold mill oil, 871D Oil sludge, activated carbon sludge, dissolved air floatation system sludge, wastewater centrifuge sludge, power plant used oil, spent anode baghouse dust, anode tumbleblast baghouse dust, anode bake ring furnace crane baghouse dust, anode butt impactor dust.

Under the Standards of Performance for Industrial-Commercial Steam Generating Units (40 CFR Part 60, Subpart Db), this boiler is considered an affected facility due to a modification occurring after February 28, 2005.

(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.1.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]~~

~~(a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source, as designated by 40 CFR 63.7490(a), except when otherwise specified in 40 CFR 63 Subpart DDDDD. The Permittee must comply with these requirements on and after September 13, 2004.~~

~~(b) Since the applicable requirements associated with the compliance options for the affected source for the large solid fuel subcategory are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.1.21, National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements.~~

~~D.1.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]~~

~~(a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after September 13, 2008.~~

~~(b) The following emissions units comprise the affected source for the large solid fuel subcategory: Boiler No. 1, Boiler No. 2, and Boiler No. 3.~~

~~(c) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.~~

~~(d) Since the applicable requirements associated with the compliance options for the affected source for the large solid fuel subcategory are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition for the affected source for the large solid fuel subcategory.~~

D.1.1 PSD Minor Limit PM, NOx, and H_2SO_4 [326 IAC 2-2]

(a) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubber for Boilers No, 1, No. 2, No. 3, and No. 4, PM emissions from Boilers No. 1, No. 2, and No. 3, combined, shall not

exceed 1060.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(b) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, NOx emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1) and Boiler No. 4 (Section D.2), combined, shall not exceed 13,720.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NOx limits in Conditions D.1.1(b), D.2.1(b), and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(c) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall be less than 677.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.016 lb/MMbtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance:

H_2SO_4 emissions = [(H_2SO_4 E.F. No. 1 x H.E. No. 1) + (H_2SO_4 E.F. No. 2 x H.E. No. 2) + (H_2SO_4 E.F. No. 3 x H.E. No. 3) + (H_2SO_4 E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

H_2SO_4 E.F. (No. 1, No. 2, No. 3, and No. 4) = lb H_2SO_4/MMBtu heat input to the respective boiler

Note: H_2SO_4 E.F.4 limitation is contained in Condition D.2.1(c)

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 3, and No. 4, respectively

Compliance with the H_2SO_4 limits in Conditions D.1.1(c) and D.2.1(c) limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.1.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM_{10} emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), combined, shall not exceed 4490.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the PM_{10} emissions from Boilers No. 1, No. 2, and No. 3 shall be less than 0.08 lb/MMBtu or a value established during the latest compliant stack test for the respective boiler. The following equation shall be utilized to determine compliance:

PM_{10} emissions = [(PM_{10} E.F. No. 1 x H.E. No. 1) + (PM_{10} E.F. No. 2 x H.E. No. 2) +

(PM_{10} E.F. No. 3 x H.E. No. 3) + (PM_{10} E.F. No. 4 x H.E. No. 4)] / 2000 lb/ton

Where:

PM_{10} E.F. (No. 1, No. 2, No. 3, and No. 4) =lb PM_{10}/MMBtu heat input to the respective boiler

Note: PM_{10} E.F.4 limitation is contained in Condition D.2.2

H.E. (No. 1, No. 2, No. 3, and No. 4) = Heat Input (MMBtu) to Boilers No. 1, No. 2, No. 4, and No. 4, respectively

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.1.3 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to CP 173-2087-00002, issued on December 9, 1991 and 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions exhausted from Boilers No. 1, No. 2, and No. 3 through Stacks 241 and 242 shall not exceed 0.228 pound per million Btu heat input (lb/MMBtu). **Upon start-up of the dedication wet scrubbers, Boiler 1 will exhaust to stack 241-1, Boiler 2 will exhaust to stack 241-2, and Boiler 3 will exhaust to stack 241-3.** This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7029 MMBtu/hr (capacity of boilers 1-4)
N = 3 (number of stacks)
a = 0.8
h = 410 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

Boilers No. 1, No. 2, and No. 3 shall no longer be subject to this condition on and after the date the respective boiler is subject to the requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Db] [326 IAC 12].

D.1.4 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

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D.1.5 Sulfur Dioxide (SO_2) [326 IAC 7-4-10]

*** * ***

D.1.6 Carbon Monoxide (CO) Limitation [326 IAC 2-2] ~~[40 CFR 52.21]~~ [326 IAC 2-2.5-1]

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, and **as revised by this SPM 173-22581-00002, and** in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) Upon start-up of the low NOx burners associated with Boilers No. 1, No. 2, and No. 3 carbon monoxide (CO) emissions exhausted through Stacks 241 and 242 shall each not exceed 1,049.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.118 pounds per million British thermal unit heat input. **Upon start-up of the dedicated wet scrubbers, Boiler 1 will exhaust to stack 241-1, Boiler 2 will exhaust to stack 241-2, and Boiler 3 will exhaust to stack 241-3. This condition shall expire when the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3 are in operation and controlling emissions from the respective boiler.**

~~(b) Any change or modification that increases the emission rate of CO from Stacks 241 or 242 to more than 239.7 pounds per hour, shall require prior IDEM, OAQ approval.~~

(b) The carbon monoxide (CO) emissions from Boilers No. 1, No. 2, and No. 3, combined, exhausted through any combination of Stacks 241, 242, 241-1, 241-2, and 241-3 shall not exceed 2099.80 tons per twelve (12) consecutive month period with compliance determined at the end of each month and the following shall apply:

(1) Upon re-routing the CO emissions from Boiler No. 1 to stack 241-1, the carbon monoxide (CO) emissions exhausted through stack 241-1 shall be less than 0.10 pound per million British thermal heat input unit.

(2) Upon re-routing the CO emissions from Boiler No. 2 to stack 241-2, the carbon monoxide (CO) emissions exhausted through stack 241-2 shall be less than 0.10 pound per million British thermal heat input unit.

(3) Upon re-routing the CO emissions from Boiler No. 3 to stack 241-3, the carbon monoxide (CO) emissions exhausted through stack 241-3 shall be less than 0.10 pound per million British thermal heat input unit.

This condition shall expire when the CO emissions from Boilers No. 1, No. 2, and No. 3 are re-routed through stacks 241-1, 241-2, and 241-3, respectively.

(c) The combined carbon monoxide (CO) emissions exhausted through Stacks 241-1, 241-2, and 241-3 shall not exceed 2099.80 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.10 pound per million British thermal heat input unit.

D.1.7 NOx Limitation [326 IAC 2-2] ~~[40 CFR 52.21]~~ [326 IAC 2-2.5-1] [326 IAC 2-1.1-1(13)(A)(iii)]

*** * ***

D.1.8 NOx Reduction [326 IAC 2-2.5-1] [326 IAC 2-2] ~~[40 CFR 52.21]~~

Pursuant to Significant Source Modification 173-16275-00002 issued on November 6, 2002, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) In order to comply with the requirements of 326 IAC 2-2.5-1, Alcoa Power Generating Inc. - Warrick power plant shall establish the following:

(1) A pounds of NOx per million British thermal unit heat input emission rate prior to installation of the low NOx burners with over fire air, and

(2) A pounds of NOx per million British thermal unit heat input emission rate after the installation of the low NOx burners with over fire air.

(b) The pounds of NOx per million British thermal unit emission rates established by paragraphs (a)(1) and (a)(2) shall show a reduction in NOx emissions from Boilers #1 - #3 pursuant to 326 IAC 2-2.5-1, and render the requirements of 326 IAC 2-2 ~~and 40 CFR 52.21~~ not applicable.

D.1.9 Sulfur Dioxide Limitations [326 IAC 2-2] ~~[40 CFR 52.21]~~

* * *

D.1.10 Discontinuation of Natural Gas Co-fire

* * *

Compliance Determination Requirements

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) By December 31 of the second calendar year following the most recent stack test~~, or within 180 days after issuance of this permit, whichever is later~~, compliance with the ~~PM and~~ CO limitations in Condition ~~D.1.3 and D.1.6~~ **D.1.6(a)** shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. **This condition shall expire upon start-up of the first of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3.**

(b) Within 60 after achieving maximum capacity, but no later than 180 days after start-up of each of the dedicated wet scrubbers for Boilers No. 1, No. 2, and No. 3, compliance with the CO limitations in Condition D.1.6 (a) and (b) shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration.

(c) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the H_2SO_4 limitations in Condition D.1.1(b), the Permittee shall conduct a performance stack test for Stack 241-1, 241-2, and 241-3, respectively. This test shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

(d) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM_{10} limitations in Condition D.1.2, the Permittee shall conduct a performance stack test for Stack 241-1, 241-2, and 241-3, respectively. PM_{10} includes filterable and condensable PM_{10}. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration..

Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner.

For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

D.1.12 NOx Emissions Reduction Verification [326 IAC 2-2.5-1] [326 IAC 2-2] ~~[40 CFR 52.21]~~

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D.1.13 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitator shall be operated at all times that Boiler~~s~~ No. 1, No. 2, and No. 3 vented to the **respective** ESP ~~are~~ **is** in operation.

D.1.14 Operation of Wet Scrubbers [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 1, the dedicated wet scrubber for Boiler No. 1 shall be in operation and control emissions from Boiler No. 1 at all times that the boiler is in operation.

(b) Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 2, the dedicated wet scrubber for Boiler No. 2 shall be in operation and control emissions from Boiler No. 2 at all times that the boiler is in operation.

(c) Except as otherwise provided by statute or rule in this permit, upon start-up of the dedicated wet scrubber for Boiler No. 3, the dedicated wet scrubber for Boiler No. 3 shall be in operation and control emissions from Boiler No. 3 at all times that the boiler is in operation.

~~D.1.14~~**D.1.15** Continuous Emissions Monitoring [326 IAC 3-5]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and Condition 13 of CP 173-2087-00002, issued on December 9, 1991, **and as revised by this SPM 173-22581-00002, the Permittee shall comply with the following:**

(1) **C**~~c~~ontinuous emission monitoring systems for Boilers No. 1, No. 2, and No. 3 shall be calibrated, maintained, and operated for measuring ~~opacity,~~ SO_2, NOx, and O_2 or CO_2~~,~~ ~~which meet all applicable performance specifications of 326 IAC 3-5-2~~.

(2) Upon start-up of each of the dedicated wet scrubbers for Boiler No. 1, No. 2, and No. 3, continuous emissions monitoring systems shall be calibrated, maintained, and operated for measuring SO2 at the inlet of each scrubber.

(3) Continuous opacity monitoring systems for Boilers No. 1, No. 2, and No. 3 shall be calibrated, maintained, and operated for measuring opacity.

(b) Pursuant to Commissioner's Order #2008-01, in lieu of the requirement to monitor opacity at 326 IAC 3-5-1(c)(2)(A), the Permittee shall comply with the following alternative monitoring plan:

(1) Upon initial re-routing of the electrostatic precipitator exhaust from its existing exhaust stack(s) to its scrubber, it will cease to operate with an associated COMS;

(2) Upon scrubber start-up, its associated PM CEMS will also commence operation;

(3) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, compliance with applicable PM and opacity requirements will be assured through monitoring of particulate removal device operating parameters. The Petitioner shall monitor the ability of the electrostatic precipitator (ESP) and the scrubber to control particulate emissions in accordance with

the following:

Electrostatic Precipitator

(A) Conduct daily monitoring of the number of Transformer Rectifier (T-R) sets in operation.

(B) Conduct daily monitoring of the primary and secondary voltages and currents of the T-R sets.

(C) Whenever the percentage of T-R sets in service falls below ninety percent (90%), the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

Scrubber

(D) Continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS.

(i) Compliance with this percent SO_2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average basis.

(E) Whenever the SO_2 reduction fall below ninety percent (90%), the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. SO_2 reduction of less than ninety percent (90%) is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(F) The Petitioner shall conduct daily monitoring of the recirculation slurry flow rate.

(G) Whenever the recirculation slurry flow rate falls below 250 gal./hr. or a value established during the latest stack test, the Petitioner shall take reasonable response steps in accordance with Section C -- Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002. Failure resulting in a recirculation slurry flow rate less than 250 gal./hr is not a deviation from Permit No. T173-6630-00002 or a violation of this Order. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances of the Petitioner's Part 70 Permit No. T173-6630-00002 shall be considered a deviation from Permit No. T173-6630-00002 and this Order.

(4) During the interim period between scrubber start-up and successful demonstration of compliance with PS-11 by the associated PM CEMS, PM CEMS downtime, except for calibration checks, and zero and span adjustments, shall be less than three percent (3%) of the total quarterly operating hours.

(5) Upon successful demonstration of compliance with PS-11, the monitoring described by Condition D.1.15(b)(3) and the PM CEMS downtime provision described by Condition D.1.15(b)(4) will be discontinued, and thereafter, PM compliance will be demonstrated by the associated PM CEMS;

(6) Upon successful completion of the certification of the PM CEMS, the Petitioner shall submit all required information to the IDEM Office of Air Quality; and

(7) Installation, operation, testing, monitoring, data reporting, data substitution, and other requirements for the PM CEMS shall be determined by NSPS, 40 CFR Part 60, Subpart Db and 326 IAC 3-5 (Continuous Monitoring of Emissions).

~~(b)~~**(c)** All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3**, and shall meet all applicable performance specifications of 326 IAC 3-5-2**.

~~(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, or 40 CFR 75.~~

~~D.1.15~~**D.1.16** Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-4-10]

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

~~D.1.16~~**D.1.17** Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.

(b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.18 Wet Scrubbers [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In order to comply with the PM_{10} limitations of Condition D.1.2, upon start-up of each of the dedicated wet scrubbers for Boiler No. 1, No. 2, and No. 3, the Permittee shall comply with the following:

(a) Monitor the scrubber inlet rate of the respective wet scrubber at least once per day when the associate boiler is in operation. When for any one reading, the scrubber inlet rate indicates that the scrubbant flow rate is less than 250 gallons per minute, or a value established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to

Excursions or Exceedances. A flow rate that is less than the 250 gallons per minute, or a value established during the latest stack test, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the scrubbant inlet rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(b) **The Permittee shall continuously monitor and determine SO_2 emissions reduction by SO_2 CEMS. Whenever the SO_2 reduction fall below ninety percent (90%), or a value established during the latest stack test, the Petitioner shall take response steps in accordance with Section C -- Response to Excursions or Exceedances. A SO2 emissions reduction of less than ninety percent (90%), or a value established during the latest stack test, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

Compliance with this percent SO2 reduction requirement will be determined on a twenty-four (24) hour daily (block) average.

~~D.1.17~~**D.1.19** Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) In the event of emissions exceeding thirty percent (30%) average opacity for three (3) consecutive six (6) minute averaging periods, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances, such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.

(b) Opacity readings in excess of thirty percent (30%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee may request that the IDEM, OAQ approve a different opacity trigger level than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

~~D.1.18~~**D.1.20** SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)] **[326 IAC 2-7-5(1)]**

Prior to start-up of the wet scrubbers for Boiler No. 1, Boiler No. 2, and Boiler No. 3, respectively, the following shall apply:

(a) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

~~(a)~~**(1)** If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

~~(b)~~**(2)** If the CEMS is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and

analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

Upon start-up of the wet scrubbers for Boiler No. 1, No. 2, and No. 3, respectively, the following shall apply:

(b) At any time the wet scrubber for Boiler No. 1, No. 2, or No. 3 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

D.1.21 Particulate Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever a particulate (PM) continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to particulate emissions:

(a) In the event that a breakdown of a PM-CEMS occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.

(b) If a PM-CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(c) Whenever a PM-CEMS is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall comply with the following:

(1) Monitor and record the pH of the scrubbing liquid, scrubber inlet rate, and exhaust air flow rate of the wet scrubber.

(2) Measure and record the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets of the ESP.

(3) Wet scrubber and T-R parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or backup CEMS is brought online.

D.1.22 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the wet scrubbers and the electrostatic precipitators controlling Boilers No, 1, No. 2, and No, 3:

Monitoring Approach for PM10 Emissions from Boilers 1 - 3			
PARAMETER	**INDICATOR NO. 1**	**INDICATOR NO. 2**	**INDICATOR NO. 3**
I. Indicator Measurement Approach	**PM10 Concentration**	**[1)] Proper Operation of Scrubbers**	**Proper Operation of Electrostatic Precipitators (ESP)**
	Test methods approved by the Commissioner, Scrubbers, and ESPs	**i. Scrubber shall maintain a SO2 reduction as determined by inlet and outlet CEMS outlet data**	**i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets**
II. Indicator Range	**an excursion is defined as being outside the following: PM10 emission limit of 0.081 lb/MMBtu**	**an excursion is defined as being outside the following: i. SO2 reduction shall be at least 90%**	**an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%**
III. Performance Criteria	**--**	**Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75**	**--**
A. Data Representativeness	**Test methods as approved by Commissioner**	**Pursuant to 40 CFR 60, Subpart Db and 40 CFR Part 75**	**Subject to Instrument Specifications of Section C of permit**
B. Verification of Operational Status	**N/A**	**N/A**	**N/A**
C. QA/QC Practices and Criteria	**Periodic inspection and maintenance of Boilers per PMP**	**Periodic inspection and maintenance of scrubbers per PMP**	**Periodic inspection and maintenance of ESP per PMP**
D. Monitoring Frequency	**Once every 2 years.**	**Continuous**	**Once per day when operating**
IV. Data Collection Proceedure	**Test methods as approved by Commissioner**	**Continuous emissions data acquisition system**	**Daily observations are recorded in log**
Averaging Period	**Test methods as approved by Commissioner**	**Six-minute Averages**	**N/A**

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

~~D.1.19~~**D.1.23** Record Keeping Requirements

(a) Until start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, the following shall apply:

~~(a)~~**(1)** To document compliance with Section C - Opacity and Conditions D.1.3 **- Particulate Emission Limitations for Sources of Indirect Heating**, D.1.4 **- Startup, Shutdown and Other Opacity Limits**, ~~D.1.14~~ **D.1.15(a) - Continuous Emissions Monitoring**, ~~D.1.16~~ **D.1.17(a) - Transformer-Rectifier (T-R) Sets**, and ~~D.1.17~~ **D.1.19 - Opacity Readings**, the Permittee shall maintain records in accordance with ~~(1)~~**(A)** through ~~(4)~~**(D)** below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.1.3 **- Particulate Emission Limitations** and D.1.4. **- Startup, Shutdown and Other Opacity Limits.**

~~(1)~~**(A)** Data and results from the most recent stack test.

~~(2)~~**(B)** All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

~~(3)~~**(C)** The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

~~(4)~~**(D)** All ESP parametric monitoring readings. T**he Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).**

~~(b)~~**(2)** To document compliance with SO_2 Conditions D.1.5 **- Sulfur Dioxide (SO_2),** D.1.9 **- Sulfur Dioxide Limitations**, ~~D.1.14~~ **D.1.15(a) - Continuous Emissions Monitoring**, ~~D.1.15~~ **D.1.16 - Sulfur Dioxide Emissions,** and ~~D.1.18~~ **D.1.20 - SO2 Monitoring Downtime**, the Permittee shall maintain records in accordance with ~~(1)~~**(A)** through ~~(3)~~**(C)** below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 **- Sulfur Dioxide (SO_2) and** D.1.9 **- Sulfur Dioxide Limitations**. The Permittee shall maintain records in accordance with ~~(2)~~**(B)** and ~~(3)~~**(C)** below during SO_2 CEMS downtime if a backup CEMS is not used.

~~(1)~~**(A)** All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

~~(2)~~**(B)** All fuel sampling and analysis data collected for SO_2 CEMS downtime, in accordance with Condition ~~D.1.18~~ **D.1.20**.

~~(3)~~**(C)** Actual fuel usage during each SO_2 CEMs downtime.

(b) Upon start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, and until receipt of certifications for each of the continuous emission monitoring systems (CEMS) for PM from Stacks 241-1, 241-2, and 241-3, respectively, is received from the IDEM, OAQ, the following shall apply:

(1) To document compliance with PM Conditions D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, D.1.18 - Wet Scrubbers, and D.1.21 - Particulate (PM) Monitoring System Downtime, the Permittee shall maintain records in accordance with (A) through (D) below. The Permittee shall maintain records in accordance with (D) below during PM CEMS downtime if a backup CEMS is not used.

Records shall be complete and sufficient to establish compliance with the limits established in Condition D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(A) All continuous emissions monitoring data for SO_2 emissions reduction, as a twenty-four (24) hour daily (block) average, in accordance with Conditions D.1.15(b)(3)(D) and D.1.18(b).

(B) All ESP parametric monitoring readings, in accordance with Conditions D.1.15(b)(3)(A), (B), and (C), and D.1.17. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(C) All wet scrubber recirculation slurry flow rate readings, in accordance with Conditions D.1.15(b)(3)(F) and (G), and D.1.18(a).

The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(D) All ESP and scrubber parametric monitor readings, in accordance with Condition D.1.21(c).

(2) To document compliance with SO_2 Conditions D.1.5 - Sulfur Dioxide (SO_2), D.1.9 - Sulfur Dioxide Limitations, D.1.15(a) - Continuous Emissions Monitoring, D.1.16 - Sulfur Dioxide Emissions, and D.1.20(b) - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 and D.1.9. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.1.20(b).

(c) Upon receipt of certification of each of the continuous emission monitoring systems (CEMS) for PM from Stacks 241-1, 241-2, and 241-3, is received from the IDEM, OAQ, the following shall apply:

(1) To document compliance with PM Conditions D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, and D.1.18 - Wet Scrubbers and D.1.21 - Particulate Matter (PM) Monitoring System Downtime, the Permittee shall maintain records in accordance with (A) through (E) below. The Permittee shall maintain records in accordance with (E) below during PM CEMS downtime if a backup CEMS is not used.

Records shall be complete and sufficient to establish compliance with the limits established in Condition D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(A) All continuous emissions monitoring data for PM, pursuant to 326 IAC 3-5.

(B) All continuous emissions monitoring data for SO_2 emissions reduction, as a twenty-four (24) hour daily (block) average, in accordance with Condition D.1.18(b).

(C) All ESP parametric monitoring readings, in accordance with Condition D.1.17. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(D) All wet scrubber recirculation slurry flow rate readings, in accordance with Condition D.1.18(a). The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(E) All ESP and scrubber parametric monitor readings, in accordance with Condition D.1.21(c).

Upon startup of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), Condition D.1.23(c)(1) shall document compliance with PM and PM10 Conditions D.1.1(a) - PSD Minor Limit PM, D.1.2 - Nonattainment New Source Review (NSR) Minor Limit, D.1.15(b) - Continuous Emissions Monitoring, D.1.17 - Transformer-Rectifier (T-R) Sets, and D.1.21 - Particulate Matter (PM) Monitoring System Downtime.

Upon startup of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), the records shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.1(a) - PSD Minor Limit PM, D.1.2 - Nonattainment New Source Review (NSR) Minor Limit, and D.1.3 - Particulate Emission Limitations for Sources of Indirect Heating.

(2) To document compliance with SO_2 Conditions D.1.5 - Sulfur Dioxide (SO_2), D.1.9 - Sulfur Dioxide Limitations, D.1.15(a) - Continuous Emissions Monitoring, D.1.16 - Sulfur Dioxide Emissions, D.1.20(b) - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.5 and D.1.9. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.1.20(b).

~~(c)~~**(d)** To document compliance with NOx Conditions **D.1.1(b),** D.1.7, D.1.12, and ~~D.1.14~~ **D.1.15**, the Permittee shall maintain records of all NOx and CO_2 or O_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NOx limit as required in Condition**s D.1.1(b) and** D.1.7.

~~(d)~~**(e)** Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(f) To document compliance with Condition D.1.22 the Permittee shall maintain records of boiler, scrubber, and ESP inspections. These records shall include at a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM Plan for the boilers, scrubbers, ESPs (if any are required).

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

~~D.1.20~~**D.1.24** Reporting Requirements

(a) **Until start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, a** ~~A~~ quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.1.4, D.1.6, D.1.7, D.1.9, and ~~D.1.14~~ **D.1.15** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

(b) Upon start-up of each of the wet scrubbers for Boilers No. 1, No. 2, and No. 3, a quarterly summary of the information to document compliance with Conditions D.1.3, D.1.6, D.1.7, D.1.9, and D.1.15 shall be submitted to the address listed in Section C - General Reporting Requirements, if this permit, using the reporting forms located at the end of this permit, or their 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).

(c) Upon start-up of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3 (Section D.1), and Boiler No. 4 (Section D.2), a quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, if this permit, using the reporting forms located at the end of this permit, or their 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).

~~(b)~~**(d)** Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

~~D.1.21 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]~~

~~(a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b) through (h) that apply to the affected source for the large solid fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:~~

~~(1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than March 12, 2005 as required by 40 CFR 63.7545(b).~~

~~(2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).~~

~~(3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).~~

~~(A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).~~

~~(B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable.~~

~~(4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.~~

~~(b) The notifications required by paragraph (a) shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Data Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~The notifications require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~D.1.22 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]~~

~~The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit for the affected source for the large solid fuel subcategory.~~

~~(a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart DDDDD, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.~~

~~(b) The significant permit modification application shall be submitted no later than nine months prior to the compliance date as specified in 40 CFR 63.7495(b).~~

~~(c) The significant permit modification application shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.1.25 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for Boilers No. 1, No. 2, and No. 3 except as otherwise specified in 40 CFR Part 60, Subpart Db.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

D.1.26 New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units: Requirements [326 IAC 12] [40 CFR Part 60, Subpart Db]

Pursuant to 40 CFR 60.40b, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Db for Boiler 1, Boiler 2, and Boiler 3, as specified as follows:

(1) 40 CFR 60.40b(a)
(2) 40 CFR 60.40b(g)
(3) 40 CFR 60.40b(j)
(4) 40 CFR 60.41b
(5) 40 CFR 60.42b(e)
(6) 40 CFR 60.42b(g)
(7) 40 CFR 60.42b(h)
(8) 40 CFR 60.42b (k)(1)
(9) 40 CFR 60.42b (k)(4)
(10) 40 CFR 60.43b(e)
(11) 40 CFR 60.43b(f)
(12) 40 CFR 60.43b(g)
(13) 40 CFR 60.43b(h)
(14) 40 CFR 60.44b(a)
(15) 40 CFR 60.44b(b
(16) 40 CFR 60.44b(c)
(17) 40 CFR 60.44b(h)
(18) 40 CFR 60.44b(i)
(19) 40 CFR 60.44b(l)
(20) 40 CFR 60.45b(a)
(21) 40 CFR 60.45b(b)
(22) 40 CFR 60.45b (c)(1)
(23) 40 CFR 60.45b (c)(2)
(24) 40 CFR 60.45b (c)(3)
(25) 40 CFR 60.45b (c)(4)
(26) 40 CFR 60.45b (c)(5)

(27) 40 CFR 60.45b(f)
(28) 40 CFR 60.45b(g)
(29) 40 CFR 60.45b(h)
(30) 40 CFR 60.45b(i)
(31) 40 CFR 60.46b(a)
(32) 40 CFR 60.46b(b)
(33) 40 CFR 60.46b(c)
(34) 40 CFR 60.46b (d)(7)
(35) 40 CFR 60.46b (e)(1)
(36) 40 CFR 60.46b (e)(2)
(37) 40 CFR 60.46b (e)(3)
(38) 40 CFR 60.46b(j)
(39) 40 CFR 60.47b(a)
(40) 40 CFR 60.47b(c)
(41) 40 CFR 60.47b(d)
(42) 40 CFR 60.47b(e)
(43) 40 CFR 60.48b(b)
(44) 40 CFR 60.48b(c)
(45) 40 CFR 60.48b(d)
(46) 40 CFR 60.48b(e)
(47) 40 CFR 60.48b(f)
(48) 40 CFR 60.48b (j)(1)
(49) 40 CFR 60.48b(k)
(50) 40 CFR 60.49b(a)
(51) 40 CFR 60.49b(b)
(52) 40 CFR 60.49b(d)
(53) 40 CFR 60.49b(f)
(54) 40 CFR 60.49b(g)
(55) 40 CFR 60.49b (h)(1)
(56) 40 CFR 60.49b (h)(2)
(57) 40 CFR 60.49b (h)(3)
(58) 40 CFR 60.49b(i)
(59) 40 CFR 60.49b(j)
(60) 40 CFR 60.49b(k)
(61) 40 CFR 60.49b(l)
(62) 40 CFR 60.49b(n)
(63) 40 CFR 60.49b(o)
(64) 40 CFR 60.49b(v)
(65) 40 CFR 60.49b(w)

Modification No. 3:

The following revisions have been made to Section D.2:

- A new Condition D.21 - PSD Minor Limit [326 IAC 2-2] has been added to incorporate limits necessary to ensure to the PM, NOx, and H_2SO_4 emissions from this modification remain below the significant emissions thresholds. A short term lb PM/MMBtu limit was established to ensure compliance with the PM ton per year emission limit. A NOx CEMS currently exist on Boiler No. 1, No. 4; therefore, a short term limit for NOx will not be required. A H_2SO_4 limit was established across Boilers No. 1, No. 2, No. 3, and No. 4, and a short term lb H_2SO_4/MMBtu for Boilers No. 1, No. 2, and No. 3 was established as part of Condition D.1.1(c). A short term lb H_2SO_4/MMBtu for Boiler No. 4 was established in Condition D.2.1(c).

- A new Condition D.2.1 - Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5] has been added to ensure the PM_{10} emissions increase from this modification remains below the

significant emissions threshold. A PM_{10} limit was established across Boilers No. 1, No. 2, No. 3, and No. 4, and a short term lb PM_{10}/MMBtu for Boilers No. 1, No. 2, and No. 3 was established as part of Condition D.1.2. A short term lb PM_{10}/MMBtu for Boiler No. 4 was established in Condition D.2.2.

- Condition D.2.3 (formerly D.2.1) - Particulate Emission Limitations for Sources of Indirect Heating, has been modified to reflect the modified stack configuration. Additional language was added to clarify that the particulate emission limit (Pt) was calculate using historical data.

- Condition D.2.10 (formerly D.2.8) - Testing Requirements, has been modified to require testing for PM within 180 days of start-up of the wet scrubber. Language has been added to state that upon start-up of the final wet scrubber for Boilers No. 1, No. 2, No. 3, and No. 4, the testing requirement of Condition D.2.10(a) will expire. At that point, new testing requirements Conditions D.2.10 (b), (c), and (d) will be required for PM, PM_{10}, and H_2SO_4 within 180 days of start-up of the final wet scrubber for Boilers No. 1, No. 2, No. 3, and No. 4.

- Condition 2.12 (formerly D.2.10) - has been modified to require the operation of the wet scrubber at all times that Boiler No. 4 is in operation.

- New Condition D.2.16 - Wet Scrubber includes compliance monitoring for the wet scrubber.

- Condition D.2.18 (formerly D.2.15) - SO_2 Monitoring System Downtime has been modified to included monitoring requirements applicable upon start-up of the wet scrubber. Additionally, language has been added to the original monitoring requirements to signify that they will cease to be effective upon start-up of the wet scrubber.

- New Condition D.2.19 - Compliance Assurance Monitoring (CAM) has been added and contains the CAM plan for PM for Boiler No. 4.

- Condition D.2.20 (formerly D.2.16) - Record Keeping Requirements has been modified to include record keeping requirements associated with new emissions limits, and revised and new compliance determination and monitoring requirements.

- Condition D.2.21 (formerly D.2.17) - Reporting Requirements has been modified to reflect changes made to emissions limits, and compliance determination and monitoring requirements in Section D.2.

Section D.2 has been revised as follows:

SECTION D.2 FACILITY OPERATION CONDITIONS - One (1) Coal-Fired Boiler (Boiler No.4)

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

(d) ~~One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with a nominal heat input capacity of 2,958 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 243. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability.~~

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced on March 16, 1968, with an electrostatic precipitator (ESP) for control of

particulate matter. Boiler No. 4 was configured with a low NOx burner in 1998 and a Selective Catalytic Reduction (SCR) system permitted and constructed in 2004. Boiler No. 4 has a nominal heat input capacity of 2,958 MMBtu/hr, and vents to stack 243, which has continuous emissions monitors (CEMs) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM). Boiler No. 4 has a natural gas burner for start-up and may be fired in conjunction with the coal-fired capability. Construction of a dedicated wet scrubber with lime injection began in 2005. Upon start-upon of the dedicated wet scrubber, Boiler No. 4 exhaust will be re-routed from stack 243 to stack 242, which will be equipped with continuous emissions monitors (CEMS) for nitrogen oxides (NOx), carbon dioxide (CO_2), and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

This unit is not an affected facility under NSPS Da because it did not commence construction, modification, or reconstruction after September 18, 1978, or under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984. The low Nox burner constructed in 1998 and the SCR system constructed in 2004 do not qualifiy as modifications as defined by 40 CFR 60, Subpart A. Specifically, the physical change did not result in increased to the atmosphere of any air pollutant (to which a standard applies) or result in any air pollutant not previously emitted.

(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.2.1 PSD Minor Limit PM, NOx, and H_2SO_4 [326 IAC 2-2]

(a) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM emissions from Boiler No. 4 shall not exceed 1425.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and shall be less than 0.11 lb/MMBtu.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(b) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, NOx emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1) and Boiler No. 4 (Section D.2), combined, shall not exceed 13,720.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NOx limits in Conditions D.1.1(b), D.2.1(b), and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

(c) In order to render PSD (Prevention of Significant Deterioration) not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, H_2SO_4 emissions from Boilers No. 1, No. 2, and No. 3 (Section D.1), and Boiler No. 4 (Section D.2), the H_2SO_4 emissions from Boiler No. 4 shall be less than 0.0275 lb/MMbtu or a value established during the latest compliant stack test.

Compliance with the H_2SO_4 limits in Conditions D.1.1(c) and D.2.1(c) limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.2.2 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order to render Nonattainment NSR not applicable, upon startup of the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, PM_{10} emissions from Boiler No. 4 shall be less than 0.217 lb/MMBtu.

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

~~D.2.1~~**D.2.3** Pollution Control Project (PCP) [326 IAC 2-2.5] [326 IAC 2-2] ~~[40 CFR 52.21]~~

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(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 decrease in NOx emissions.

(b) The expected emissions increase of sulfuric acid (H_2SO_4) from this pollution control project is exempted from the 326 IAC 2-2 PSD requirements.

(c) This pollution control project does not revise the existing applicable limitations and requirements already specified in the PSD permit 173-2087-00002, issued on December 9, 1991 for Boiler No. 4.

~~D.2.2~~**D.2.4** Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to CP 173-2087-00002, issued on December 9, 1991 and 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions exhausted from Boiler No. 4 through Stack 243 shall not exceed 0.228 pound per million Btu heat input (lb/MMBtu). **Upon start-up of the dedicated wet scrubber Boiler No. 4 will exhaust to stack 242.** This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7029 MMBtu/hr (capacity of boilers 1-4)
N = 3 (number of stacks)
a = 0.8
h = 442 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

~~D.2.3~~**D.2.5** Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:

(a) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed five (5) hours (fifty (50) six (6)-minute averaging periods) from the time of the first exceedance or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator, whichever occurs first. Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(b) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed four and one half (4.5) hours (forty five (45) six (6)-minute averaging periods) after de-energization of the ESP. Operation of the electrostatic precipitator is not required during these times. [326 IAC 5-1-3(e)]

(c) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging period in any sixty (60) minute period. The exceedances shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

(d) If a facility cannot meet the opacity limitations of 326 IAC 5-1-3(b), the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

~~D.2.4~~**D.2.6** Sulfur Dioxide (SO_2) [326 IAC 7-4-10]

Pursuant to 326 IAC 7-4-10 (Warrick County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler No. 4 shall not exceed 5.11 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

~~D.2.5~~**D.2.7** Sulfur Dioxide Limitations [326 IAC 2-2] ~~[40 CFR 52.21]~~

(a) Pursuant to the August 12, 1996 Administrative Amendment to Condition 7 of CP (173)-2087-00002, issued on December 9, 1991, sulfur dioxide emissions from Boilers No. 1, No. 2, No. 3 and No. 4 shall not exceed a total of 157,206 tons per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to a total of 79,074 tons of sulfur input per year, based on:

(1) A 365 consecutive day weighted average sulfur dioxide emission rate in pounds per million British thermal units, with compliance determined at the end of each day, and

(2) Operating a continuous monitoring system for sulfur dioxide in accordance with the requirements 326 IAC 3-5-1.

(b) Pursuant to Condition 8(b) of CP 173-2087-00002, issued on December 9, 1991, SO_2 emissions from Boiler No. 4 shall not exceed 181.2 tons per day with compliance determined at the end of each day.

~~D.2.6~~**D.2.8** NOx Limitation [326 IAC 2-2] ~~[40 CFR 52.21]~~ [326 IAC 2-2.5-1] [326 IAC 2-1.1-1(13)(A)(iii)]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, NOx emissions from Boilers No. 1, No. 2, No. 3 and No. 4 shall not exceed a total of 26,080 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

~~D.2.7~~**D.2.9** NOx Reduction [326 IAC 2-2.5-1] [326 IAC 2-2] ~~[40 CFR 52.21]~~

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, 326 IAC 2-2.5 (Pollution Control Projects), and in order to render PSD (Prevention of Significant Deterioration) not applicable, the following applies:

(a) In order to comply with the requirements of 326 IAC 2-2.5-1, Alcoa Power Generating Inc. - Warrick power plant shall establish the following:

(1) A pounds of NOx per million British thermal unit heat input emission rate prior to installation of the selective catalytic reduction (SCR) for Boiler No. 4, and

(2) A pounds of NOx per million British thermal unit heat input emission rate after the installation of the selective catalytic reduction (SCR) for Boiler No. 4.

(b) The pounds of NOx per million British thermal unit emission rates established by paragraphs (a)(1) and (a)(2) shall show a reduction in NOx emissions from Boiler No. 4 pursuant to 326 IAC 2-2.5-1, and render the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable.

Compliance Determination Requirements

~~D.2.8~~**D.2.10** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) By December 31 of the second calendar year following the most recent stack test, or within 180 days after issuance of this permit, whichever is later, compliance with the PM limitation in Condition ~~D.2.2~~ **D.2.4** shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. **This condition shall expire upon start-up of the final dedicated wet scrubber for Boilers No. 1, No. 2, No. 3, and No. 4.**

(b) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM limitations in Condition D.2.1(a), the Permittee shall conduct a performance stack test for Stack 242. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration..

(c) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the H_2SO_4 limitations in Condition D.2.1(c), the Permittee shall conduct a performance stack test for Stack 242. This test shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

(d) Within 60 after achieving maximum capacity, but no later than 180 days after start-up the final dedicated wet scrubbers for Boilers No, 1, No. 2, No. 3, and No. 4, in order to demonstrate compliance with the PM_{10} limitations in Condition D.2.2, the Permittee shall conduct a performance stack test for Stack 242. PM_{10} includes filterable and condensable PM_{10}. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration..

Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner.

For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

~~D.2.9~~**D.2.11** H_2SO_4 Emissions [326 IAC 2-2.5] [326 IAC 2-2]

Pursuant to Significant Source Modification 173-18485-00002 issued on April 8, 2004, the Permittee shall calculate the H_2SO_4 emissions increase due to the installation and operation of

the selective catalytic reduction (SCR) for Boiler No. 4. A one-time submission of manufacturer's guaranteed conversion rate of SO_2 to SO_3 shall meet the requirements of this condition.

~~D.2.10~~**D.2.12** Operation of Electrostatic Precipitator **and Wet Scrubber** [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitator shall be operated at all times that the Boiler No. 4 vented to the ESP is in operation.

(b) Upon start-up of the dedicated wet scrubber for Boiler No. 4, the dedicated wet scrubber for Boiler No. 4 shall be in operation and control emissions from Boiler No. 4 at all times that the boiler is in operation.

~~D.2.11~~**D.2.13** Continuous Emissions Monitoring [326 IAC 3-5]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and Condition 13 of CP 173-2087-00002, issued on December 9, 1991, continuous emission monitoring systems for Boiler No. 4 shall be calibrated, maintained, and operated for measuring opacity, SO_2, NOx, and O_2 or CO_2, which meet all applicable performance specifications of 326 IAC 3-5-2.

(b) All continuous emissions monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 or 40 CFR 75.

~~D.2.12~~**D.2.14** Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-4-10]

Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions from Boiler No. 4 do not exceed the equivalents of the limits specified in Conditions ~~D.2.4~~ **D.2.6** and ~~D.2.5~~ **D.2.7** using a thirty (30) day rolling weighted average.

Continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 shall be used as the means for determining compliance with the emission limitations in 326 IAC 7 and condition ~~D.2.5~~ **D.2.7**.

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

~~D.2.13~~**D.2.15** Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.

(b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.16 Wet Scrubber [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Upon start-up of the dedicated wet scrubber for Boiler No. 4, the Permittee shall comply with the following:

(a) The Permittee shall monitor the pH of the scrubbing liquid, exhaust air stream pressure drop and pump discharge pressure of the dedicated wet scrubber for Boiler No. 4 at least once per day when the respective wet scrubber is in operation.

(b) When for any one reading, the pH of the scrubbing liquid is less than 8.5 or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pH reading that is less than 8.5 or a value established during the latest RATA is not a deviation from this permit.

(c) When for any one reading, the exhaust air stream pressure drop is outside the normal range of 10.0 and 16.0 inches of water or a range established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure drop reading that is outside the normal range or a range established during the latest RATA is not a deviation from this permit.

(d) When for any one reading, the scrubber inlet rate indicates that the scrubbant flow rate is less than 329 gallons per minute or a value established during the latest Relative Accuracy Test Audit (RATA), the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than 329 gallons per minute or a rate established during the latest RATA is not a deviation from this permit.

Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instruments used for determining the pH, pressure drop and discharge pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

~~D.2.14~~**D.2.17** Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) In the event of emissions exceeding thirty percent (30%) average opacity for three (3) consecutive six (6) minute averaging periods, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances, such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.

(b) Opacity readings in excess of thirty percent (30%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee may request that the IDEM, OAQ approve a different opacity trigger level than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

~~D.2.15~~**D.2.18** SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Prior to start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(a) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

~~(a)~~**(1)** If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately

before and the hour immediately after the missing data period for each hour of missing data.

~~(b)~~**(2)** If the CEMS is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

Upon start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(b) At any time the wet scrubber for Boiler No. 4 is operating, if the respective SO2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the wet scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired.

Wet scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

D.2.19 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the wet scrubber and the electrostatic precipitators controlling Boiler No. 4:

Monitoring Approach for PM Emissions from Boiler 4				
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
I. Indicator Measurement Approach	Particulate Concentration	Opacity	[1)] Scrubbers Operational Parameter	Electrostatic Precipitators (ESP)
	Methods approved by the Commissioner, Scrubbers, and ESPs	COM	i. scrubber liquid pH ii. exhaust air stream pressure drop iii. scrubbant flow rate	i. # of T-R sets in operation ii. primary & secondary voltages iii. currents of T-R sets
II. Indicator Range	Particulate emission limit of 0.228 lb/MMBtu	Pursuant to 326 IAC 5-1 - Opacity Limitations, and IAC 5-1-3 - Tempory Opacity Limitations	an excursion is defined as being outside the following: i. < 8.5 pH ii. 12.0 - 18.0 inches of H2O iii. 250 gallons/ minute	an excursion is defined as being outside the following: i. # of T-R sets in service shall be > 90%
III. Performance Criteria		Pursuant to 40 CFR, Part 75	--	--
A. Data Representativeness	Methods as approved by Commissioner	Pursuant to 326 IAC 3	Subject to Instrument Specifications of Section C of permit	Subject to Instrument Specifications of Section C of permit
B. Verification of Operational Status	N/A	--	N/A	N/A
C. QA/QC Practices and Criteria	Periodic inspection and maintaince of Boilers per PMP	Pursuant to 326 IAC 3	Periodic inspection and maintenance of scrubbers per PMP	Periodic inspection and maintenance of ESP per PMP

Monitoring Approach for PM Emissions from Boiler 4				
PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3	INDICATOR NO. 4
D. Monitoring Frequency	Once every 2.5 years.	6 minute average	Once per day when operating	Once per day when operating
IV. Data Collection Proceedure	Methods as approved by Commissioner	Pursuant to 40 CFR, Part 75	Daily observations are recorded in log	Daily observations are recorded in log

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

~~D.2.16~~**D.2.20** Record Keeping Requirements

(a) **Until start-up of the wet scrubber for Boiler No. 4, the following shall apply:**

(1) To document compliance with Section C - Opacity and Conditions ~~D.2.2~~ **D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating**, ~~D.2.3~~ **D.2.5 - Startup, Shutdown and Other Opacity Limits**, ~~D.2.11~~ **D.2.13 - Continuous Emissions Monitoring**, ~~D.2.13~~ **D.2.15 - Transformer-Rectifier (T-R) Sets**, and ~~D.2.14~~ **D.2.175- Opacity Readings**, the Permittee shall maintain records in accordance with ~~(1)~~ **(A)** through ~~(4)~~ **(D)** below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions ~~D.2.2~~ **D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating**, ~~D.2.3~~ **D.2.5 - Startup, Shutdown and Other Opacity Limits**.

~~(1)~~**(A)** Data and results from the most recent stack test.

~~(2)~~**(B)** All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

~~(3)~~**(C)** The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

~~(4)~~**(D)** All ESP parametric monitoring readings. **The Permittee shall include in its daily records, when a reading is not taken and the reason for the lack of the reading (e.g. the process did not operate that day).**

(2) To document compliance with SO_2 Conditions ~~D.2.4~~ **D.2.6 - Sulfur Dioxide (SO_2)**, ~~D.2.5~~ **D.2.7 - Sulfur Dioxide Limitations**, ~~D.2.11~~ **D.2.13 - Continuous Emissions Monitoring** , ~~D.2.12~~ **D.2.14 - Sulfur Dioxide Emissions**, and ~~D.2.15~~ **D.2.18 - SO_2 Monitoring System Downtime**, the Permittee shall maintain records in accordance with ~~(1)~~ **(A)** through ~~(3)~~ **(C)** below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions ~~D.2.4~~ **D.2.6** and ~~D.2.5~~ **D.2.7** . The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEMS downtime if a backup CEMS is not used.

~~(1)~~**(A)** All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

~~(2)~~**(B)** All fuel sampling and analysis data collected for SO_2 CEMS downtime, in accordance with Condition ~~D.2.15~~ **D.2.18**.

~~(3)~~**(C)** Actual fuel usage during each SO_2 CEM downtime.

(b) Upon start-up of the wet scrubber for Boiler No. 4, the following shall apply:

(1) To document compliance with Section C - Opacity and Conditions D.2.1 - PSD Minor Limits, D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits, D.2.13 - Continuous Emissions Monitoring, D.2.15- Transformer-Rectifier (T-R) Sets, D.2.16 - Wet Scrubber, and D.2.17- Opacity Readings, the Permittee shall maintain records in accordance with (A) through (E) below.

Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.1 - PSD Minor Limits, D.2.4 - Particulate Emission Limitations for Sources of Indirect Heating, D.2.5 - Startup, Shutdown and Other Opacity Limits,.

(A) Data and results from the most recent stack test.

(B) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.

(C) The results of all Method 9 visible emission readings taken during any periods of COMS downtime.

(D) Daily records of the number of T-R sets in service, the primary and secondary voltages, and the currents of the T-R sets. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(E) All wet scrubber pH, exhaust air stream pressure drop, and pump discharge pressure readings, in accordance with Condition D.2.16. The Permittee shall included in its daily record when a reading is not taken and the reason for the lack of a recorded reading (e.g. the process did not operate that day).

(2) To document compliance with SO_2 Conditions D.2.6 - Sulfur Dioxide (SO_2), D.2.7 - Sulfur Dioxide Limitations, D.2.13 - Continuous Emissions Monitoring, D.2.14 - Sulfur Dioxide Emissions, D.2.16 - Wet Scrubber, D.2.18 - SO_2 Monitoring Downtime, the Permittee shall maintain records in accordance with (A) through (B) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.2.6 and D.2.7. The Permittee shall maintain records in accordance with (B) below during SO_2 CEMS downtime if a backup CEMS is not used.

(A) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g),

(B) All wet scrubber parametric monitoring and boiler load readings taken during any periods of SO_2 CEMS downtime, in accordance with Condition D.2.18(b).

(c) To document compliance with NOx Conditions **D.2.1(b)**, ~~D.2.6~~ **D.2.8,** and ~~D.2.11~~**D.2.13**, the Permittee shall maintain records of all NOx and CO_2 or O_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NOx limit as required in Condition**s D.2.1(b) and** ~~D.2.6~~. **D.2.8**.

(d) To document compliance with Condition**s D.2.1(c) and** ~~D.2.9~~ **D.2.11**, the Permittee shall keep records that verify the emissions rates of H_2SO_4 from Boiler No. 4. These shall be made available upon request to IDEM, OAQ and the US EPA.

(e) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(f) To document compliance with Condition D.2.19 the Permittee shall maintain records of boiler, scrubber, and ESP inspections. These records shall include at a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM Plan for the boilers, scrubbers, ESPs (if any are required).

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

~~D.2.17~~**D.2.21** Reporting Requirements

(a) **Until start-up of the wet scrubber for Boiler No. 4,** ~~A~~**a** quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.3, D.2.4, D.2.5, D.2.6, and D.2.11 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

(b) Upon start-up of the wet scrubber for Boiler No. 4, a quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.1, D.2.2, D.2.3, D.2.4, D.2.5, D.2.6, and D.2.11 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

~~(b)~~**(c)** Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

Modification No. 4:

The following revisions have been made to Section D.3:

- Original Conditions D.3.1 and D.3.2, which requires the Permittee to comply with the applicable requirements of 40 CFR 63, Subpart DDDDD, on and after September 13, 2007, have been removed; and, original Condition D.3.4, which required the Permittee to submit notifications pursuant to 40 CFR 63, Subpart DDDDD, has been removed.

- Additional language was added to Condition D.3.1 (former Condition D.3.3) to clarify that the particulate emission limit (Pt) was calculate using historical data.

Section D.3 has been revised as follows:

SECTION D.3 FACILITY OPERATION CONDITIONS - One (1) Oil/gas-fired boiler (Emergency Rolling Mill Boiler)

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

(e) One (1) gas-fired boiler, identified as Emergency Rolling Mill Boiler, constructed in 1979, with a nominal heat input capacity of 79 million Btu per hour (MMBtu/hr) and exhausting to stack 242.

This unit is not an affected facility under NSPS Db because it did not commence construction, modification or reconstruction after June 19, 1984.

(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.3.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]~~

~~The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source, as designated by 40 CFR 63.7506(b). The Permittee must comply with these requirements on and after September 13, 2004.~~

~~D.3.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]~~

~~(a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after September 13, 2007.~~

~~(b) The Emergency Rolling Mill Boiler is the affected source for the large gaseous fuel subcategory.~~

~~(c) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.~~

~~D.3.3~~**D.3.1** Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the

Emergency Rolling Mill Boiler stack shall not exceed 0.227 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 µ/m3
Q = 7108 MMBtu/hr (capacity of boilers)
N = 3 (number of stacks)
a = 0.8
h = 442 Feet (average stack height)

Pursuant to 326 IAC 6-2-3(b), limitations for all facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation and shall include the parameters for all facilities in operation on June 8, 1972. Therefore, the values in the above equation are representative of the parameters as they existed on June 8, 1972, and do not necessarily reflect current operating configurations.

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

~~D.3.4 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]~~

~~(a) Pursuant to 40 CFR 63.7545(a) and 40 CFR 63.7506(b), the Permittee shall submit an Initial Notification containing the information specified in 40 CFR 63.9(b)(2) for the Emergency Rolling Mill Boiler not later than March 12, 2005 as required by 40 CFR 63.7545(b).~~

~~(b) The notification required by paragraph (a) shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Data Section, Office of Air Quality~~
~~100 North Senate Avenue~~
~~Indianapolis, Indiana 46204-2251~~

~~The notification requires the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

Modification No. 5:

The following revisions have been made to Section D.4:

- Condition D.4.2(b) has been added in order to ensure that the PM emissions increase from the scrubber project is less than the significant emissions threshold. Since Warrick County is nonattainment for PM2.5, the PM_{10} limits contained in Condition D.4.2(a) are now located in new Condition D.4.3(a) - Nonattainment New Source Review (NSR) Minor Limit.

- Condition D.4.3 - Nonattainment New Source Review (NSR) Minor Limit, has been added to the permit and contains the original Condition D.4.2 PM_{10} limits and the new PM_{10} limits necessary to ensure the scrubber project remains below the significant emissions threshold.

- Condition D.4.4 has been added to incorporate testing requirements for the proposed limestone and coal unloading hopper baghouse.

- Condition D.4.5 (former Condition D.4.3) has been expanded to include compliance determination requirements for the proposed limestone handling equipment.

- Condition D.4.6 (former Condition D.4.4) has been expanded and Conditions D.4.8 and D.4.9 have been added to include compliance monitoring requirements for the proposed limestone handling equipment.

- Condition D.4.10 (former Condition D.4.6) - Record Keeping Requirements has been revised to reflect the modified compliance determination and monitoring requirements.

Section D.4 has been revised as follows:

SECTION D.4 FACILITY OPERATION CONDITIONS - Coal and Limestone Storage and Handling

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

(f) One (1) unloading station for barges, constructed prior to 1974, consisting of a clamshell bucket that transfers coal and limestone from the barge to a spud hopper, with a nominal throughput of 1,300 tons of coal per hour or 40 tons of limestone per hour, a pipe conveyor will transfer the material to a hopper used for loading trucks, with emissions from the drop points controlled by a baghouse, exhausting through stack 244. The spud hopper and the baghouse approved for construction in 2008 in order to accommodate the transfer of limestone.

~~(f)~~**(g)** A coal transfer system, constructed prior to 1974, with a nominal throughput of 1,300 tons of coal per hour, consisting of the following equipment:

(1) One (1) unloading station for trucks, adjacent to the 211 railcar dumper, with a drop point to an underground conveyor, with the drop point, identified as DP-1, equipped with wet suppression, and exhausting to the ambient air.

~~(2) One (1) unloading station for barges, consisting of a clamshell bucket that transfers coal from the barge to a conveyor, with a drop point to a hopper used for loading trucks, with the drop point, identified as DP-2, uncontrolled and exhausting to the ambient air.~~

~~(3)~~**(2)** The 211 rail car dumper, with an enclosed drop point to an underground conveyor, with the drop point, identified as DP-3, equipped with wet suppression and exhausting to the ambient air.

~~(4)~~**(3)** One (1) 9.0 acre coal storage pile, having an estimated storage capacity of 300,000 tons, with fugitive emissions controlled by periodic watering by truck, and exhausting to the ambient air.

~~(5)~~**(4)** The 210H truck hopper, with a drop point a coal storage pile identified as F-1, with the drop point equipped with wet suppression and exhausting to the ambient air.

~~(6)~~**(5)** Multiple loading stations for trucks, with drop points to a coal storage pile, identified as F-1, uncontrolled and exhausting to the ambient air.

~~(7)~~**(6)** Enclosed conveyor (4), with a drop point to the F-1 coal pile stacking tower, uncontrolled and exhausting to the ambient air.

~~(8)~~**(7)** Enclosed conveyors 5 and 5A with each transfer point enclosed.

~~(9)~~**(8)** Four (4) coal bunkers. Bunkers are loaded via a conveyor tripper system servicing Boilers No. 1, No. 2, No. 3 and No. 4. Particulate matter generated from loading bunkers is controlled by rotoclones and exhausts to the ambient air.

~~(10)~~**(9)** One (1) enclosed coal crusher, constructed in 1960, with each transfer point equipped with wet suppression, and exhausting to the ambient air.

~~(11)~~**(10)** Two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor, permitted in 2001, but not yet constructed, uncontrolled and exhausting to the ambient air.

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(1) One (1) 1.42 acre limestone storage pile, having an estimated storage capacity of 40 tons, with fugitive emissions controlled by periodic watering by truck.

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) Three enclosed pipe conveyors, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

(i) One (1) dry flyash storage silo, approved for construction in 2008, equipped with a baghouse for particulate control, receiving flyash from an enclosed conveyor, emissions controlled by a bin vent filter, exhausting through stack 243.

(j) One (1) gypsum dewatering system and slurry conveyor, approved for construction in 2008, with a nominal capacity of 72 tons of gypsum per hour, emissions are uncontrolled and exhausting through vent 248 to ambient atmosphere.

(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.4.1 Particulate **Emission Limitations** [326 IAC 6-3-2]

~~Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the coal storage, and handling drop points, coal crusher, and coal bunkers shall not exceed 81 pounds per hour when operating at a process weight of 1,300 tons per hour.~~

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Unloading Station (when handling coal)	**1,300**	**81**
Coal storage, handling drop points, crushers, and bunkers	**1,300**	**81**
Unloading Station (when handling limestone)	**40**	**42.53**
Limestone storage and handling drop points	**40**	**42.53**
Limestone wet ball mills	**19.7**	**30.20**
Gypsum dewatering	**72**	**48**

~~This is~~ **These limits are** determined by the following equation**s**:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

When the process weight rate exceeds two hundred (200) tons per hour, the maximum allowable emission may exceed E pounds per hour, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

D.4.2 PM Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

(a) Pursuant to Minor Source Modification 173-14884-00002 issued on November 1, 2001, and in order to render PSD (Prevention of Significant Deterioration) not applicable, the PM ~~and PM-10~~ emissions from the two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor shall be limited to 5.71 ~~and 3.42~~ pounds per hour~~, respectively~~. Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) ~~and 40 CFR 52.21~~ not applicable.

(b) In order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the following conditions shall apply:

(1) The PM emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	**Unloading Station for Barges Baghouse (244)**	**9.43**
Limestone Day Silos No. 1, No. 2, and No. 3, and associated weight scales and conveyance drop points.	**Limestone Day Silos Bin Vent Filters (245), (246), (247)**	**0.96**
Flyash Storage Silo	**Bin Vent Filter (243)**	**0.26**
Gypsum Dewatering System and Slurry Conveyor	**Vent (248)**	**1.89**

Compliance with these limits, in conjunction with the PM fugitive emissions from the associated road travel and storage piles, ensures the PM emissions from the limestone transfer, handling, and storage, shall not exceed 422.71 tons per year.

(2) The coal throughput to the coal transfer station shall not exceed 3,707,969 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, ensures limits the PM emissions from the coal transfer station, including PM fugitive emissions from the associated road travel, shall not exceed 450.0 tons per year.

Compliance with the PM limits in Conditions D.1.1(a), D.2.1(a), and D.4.2(b) shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

D.4.3 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

(a) Pursuant to Minor Source Modification 173-14884-00002 issued on November 1, 2001, and in order to render Nonattainment New Source Review (NSR) not applicable, the PM_{10} emissions from the two (2) overland coal belt conveyors, one (1) truss coal belt conveyor and one (1) stacking coal conveyor shall be limited to 3.42 pounds per hour. Compliance with these limits, shall render the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)) not applicable.

(b) In order to render 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)) not applicable, the following conditions shall apply:

(1) The PM_{10} emissions shall not exceed the following:

Process Description	Unit Description (Stack/Vent)	PM_{10} Emission Limit (lbs/hr)
Unloading Station for Barges Spud Hopper, Truck Loading Hopper, and conveyance points	**Hopper Baghouse (244)**	**9.43**
Limestone Day Silos No. 1, No. 2, and No. 3, and associated	**Limestone Day Silos Bin Vent Filters**	**0.96**

Process Description	Unit Description (Stack/Vent)	PM_{10} Emission Limit (lbs/hr)
weight scales and conveyance drop points.	**(245), (246), (247)**	
Flyash Storage Silo	**Bin Vent Filter (243)**	**0.26**
Gypsum Dewatering System and Slurry Conveyor	**Vent (248)**	**1.89**

Compliance with these limits, in conjunction with the PM_{10} fugitive emissions from the associated road travel and storage piles, ensures the PM_{10} emissions from the limestone transfer, handling, and storage, shall not exceed 139.6 tons per year.

(2) The coal throughput to the coal transfer station shall not exceed 3,707,969 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, ensures limits the PM10 emissions from the coal transfer station, including fugitive emissions from the associated road travel, shall not exceed 340.0 tons per year.

Compliance with the PM_{10} limits in Conditions D.1.2, D.2.2, and D.4.3(b) shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this Significant Source Modification No.: 173-22006-00002.

Compliance Determination Requirements

D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 60 after achieving maximum capacity, but no later than 180 days after start-up of the coal and limestone unloading operations, in order to demonstrate compliance with the PM and PM_{10} limitations in Conditions D.4.1 and D.4.2, the Permittee shall conduct PM and PM_{10} performance testing for stack 244. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing, using methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

~~D.4.3~~**D.4.5** Particulate Control [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute or rule or in this permit, the watering system for the coal storage **and limestone storage** pile**s** shall be in operation and control emissions as needed when coal is being unloaded.

(b) Except as otherwise provided by statute or rule or in this permit, the dust collectors for particulate control shall be in operation and control emissions at all times the associated coal processing or conveyors are in operation.

(c) Except as otherwise provided by stature or rule or in this permit, the bin vent filters and hopper baghouse for particulate control shall be in operation and control emissions at all times the associated limestone weighing, storage or conveyors are in operation.

(d) **Except as otherwise provided by stature or rule or in this permit, the bin vent filters for particulate control shall be in operation and control emissions at all times the associated flyash is being loaded into the flyash silo.**

~~(c)~~**(e)** Except as otherwise provided by statute or rule or in this permit, the rotoclones for particulate control shall be in operation and control emissions at all times the associated coal bunkers are in operation.

(f) **In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

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

~~D.4.4~~**D.4.6** Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the coal **and limestone** unloading station **baghouse exhaust, coal and limestone** drop point**s**, coal **and limestone** transfer point exhausts, and coal crusher shall be performed once per day during normal daylight operations. A trained employee shall record whether any emissions are observed.

(b) Visible emission notations of the coal bunkers, ~~and~~ coal scale**, the limestone day silos bin vent exhausts (245, 246, 247), and the flyash storage silo bin vent exhaust (243)** shall be performed once per week during normal daylight operations. A trained employee shall record whether any emissions are observed.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed from the coal unloading station drop points, coal transfer station exhausts, coal crusher, coal bunker, or coal scale, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Visible emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

~~D.4.5~~**D.4.7** Particulate Control [326 IAC 2-7-6(6)]

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.8 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the coal and limestone unloading station, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the bin vent filters used in conjunction with each of the three (3) limestone day silos exhaust vents (245, 246, 247) at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, (and local agency if applicable) and shall be calibrated at least once every six (6) months.

D.4.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

~~D.4.6~~**D.4.10** Record Keeping Requirements

~~(a) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.4, the Permittee shall maintain records of the visible emission notations of the transfer points, coal unloading stations, coal bunkers, and coal scale.~~

(a) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.6, the Permittee shall maintain daily records of the visible emission notations of the coal and limestone unloading station baghouse exhaust, coal and limestone drop points, coal and limestone transfer point exhausts, and the coal crusher. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.6, the Permittee shall maintain weekly records of the visible emission notations of the coal bunkers, coal scale , limestone day silos bin vent exhausts (245, 246, 247), and flyash storage silo bin vent exhaust (243).

(c) To document compliance with Section C - Opacity, Section C - Fugitive Dust Emissions, and Condition D.4.8, the Permittee shall maintain daily records of the pressure drop across the coal and limestone unloading hopper baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) To document compliance with Conditions D.4.2(b)(2) and D.4.3(b)(2), the Permittee shall maintain records of the coal usage.

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

Modification No. 6:

A new Section D.5 has been added to incorporate the applicable state and federal requirements for the new emission units identified as Y-pit Pump1, Y-pit Pump2, and the emergency firewater pump engine (249). Section D.5 is as follows:

SECTION D.5 FACILITY OPERATION CONDITIONS - Diesel Engines

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

(k) Two (2) diesel-fired pumps, identified as Y-pit Pump1 and Y-Pump2, approved for construction in 2008, each with a rated capacity of 500 horsepower, located at the Y-pit for the purpose of removing rainwater. Under 40 CFR 60, Subpart IIII, Y-pit Pump1 and Y-pit Pump2 are considered to be stationary internal combustion engines.

(m) One (1) diesel emergency firewater pump engine, identified as 249, approved for construction in 2008, rated at 465 horsepower, using no controls. Under 40 CFR 60, Subpart IIII, the diesel emergency firewater pump engine is considered to be stationary internal combustion engine.

(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.5.1 Prevention of Significant Deterioration (PSD) Minor Limit for VOC and NOx [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The NOx emissions from Y-pit Pump1 and Y-pit Pump2 shall not exceed 15.5 pounds per hour, each.

(b) Y-pit Pump1 and Y-pit Pump2 shall be limited to 10,000 hours of operation, combined, per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the NOx limits in Conditions D.1.7 and D.5.1(a), in conjunction with the hours of operation limit in Condition D.5.1(b), shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this Significant Source Modification No.: 173-22006-00002.

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

D.5.2 Record Keeping Requirements

(a) The Permittee shall maintain records of the hours of operation of Y-pit Pump1 and Y-pit Pump2.

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

D.5.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their 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).

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.5.4 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for Y-pit Pump1, Y-pit Pump2, and for the diesel emergency firewater pump engine 249 except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

D.5.4 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which are incorporated by reference as 326 IAC 12, for Y-pit Pump1, Y-pit Pump2, and for the diesel emergency firewater pump engine 249 as follows:

(1) 40 CFR 60.4200(a)
(2) 40 CFR 60.4200(d)
(3) 40 CFR 60.4201(a)
(4) 40 CFR 60.4201(d)
(5) 40 CFR 60.4202(a)
(6) 40 CFR 60.4202(d)
(7) 40 CFR 60.4204(a)
(8) 40 CFR 60.4204(b)
(9) 40 CFR 60.4205(a)
(10) 40 CFR 60.4205(b)
(11) 40 CFR 60.4205(c)
(12) 40 CFR 60.4206
(13) 40 CFR 60.4207(a)
(14) 40 CFR 60.4207(b)
(15) 40 CFR 60.4207(c)
(16) 40 CFR 60.4208
(17) 40 CFR 60.4209
(18) 40 CFR 60.4210(a)
(19) 40 CFR 60.4210(b)
(20) 40 CFR 60.4210(c)
(21) 40 CFR 60.4210(d)
(22) 40 CFR 60.4210(e)
(23) 40 CFR 60.4210(f)
(24) 40 CFR 60.4210(g)
(25) 40 CFR 60.4210(i)
(26) 40 CFR 60.4211(a)
(27) 40 CFR 60.4211(b)
(28) 40 CFR 60.4211(c)
(29) 40 CFR 60.4211(e)
(30) 40 CFR 60.4214
(31) 40 CFR 60.4218
(32) CFR 60.4219

Table 1 to Subpart IIII of Part 60
Table 2 to Subpart IIII of Part 60
Table 3 to Subpart IIII of Part 60
Table 4 to Subpart IIII of Part 60
Table 5 to Subpart IIII of Part 60
Table 8 to Subpart IIII of Part 60

Modification No. 7:

A new Section D.6 was added incorporating the requirements applicable to the two rental diesel generators, identified as Engine1 and Engine2. Section D.6 is as follows:

SECTION D.6 FACILITY OPERATION CONDITIONS - Diesel Engines

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

(l) Two (2) rental diesel generators that shall not exceed 775 hp each, approved for construction in 2008, identified as Engine1 and Engine2. Pursuant to 40 CFR 60.1068.30, the rental diesel generators are considered nonroad engines. Therefore, under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ, the engines are not affected units.

Note: These generators will be installed on an as-needed basis.

(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.6.1 Rental Generators [326 IAC 2-7-10.5] [326 IAC 2-7-12]

The Permittee may remove and replace these rental generators (Engine1 and Engine2) with another rental generator at any time without prior approval under 326 IAC 2-7-10.5 and 326 IAC 2-7-12. Subject to the following conditions:

(a) only two (2) generators may be installed and operated under this approval (SSM 173-22006-00002 and SPM 173-22581-00002);

(b) the generators shall not exceed 775 hp each; and

(c) the generators shall be diesel-fired only.

D.6.2 Prevention of Significant Deterioration (PSD) Minor Limit for NOx [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following :

(a) The NOx emissions from any rental generator with a rated output capacity equal to or less than six hundred (600) horsepower (hp) shall not exceed 0.60 lb of NOx per gallon of diesel fuel combusted.

(b) The NOx emissions from any rental generator with a rated output capacity greater than six hundred (600) horsepower (hp) shall not exceed 0.43 lb of NOx per gallon of diesel fuel combusted.

(c) The total NOx emissions from the two (2) rental generators (Engine1 and Engine2) shall be less than forty (40.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

NOx Emissions (tons per month) = (A x 0.60 + B x 0.43) / 2000

Where:

A = Diesel fuel usage (gallons) used by generators with a rated capacity less than or equal to six hundred (600) horsepower (hp)

B = Diesel fuel usage (gallons) used by generators with a rated capacity greater than six hundred (600) horsepower (hp)

Compliance with the above limit shall limit the NOx from the rental engines to less than forty (40) tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the installation of the rental generators.

D.6.3 Nonroad Engines [326 IAC 12] [40 CFR 60, Subpart IIII]

In order to render the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII), which are incorporated by reference as 326 IAC 12, and to ensure the rental generators (Engine1 and Engine2) are nonroad engines, as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), the Permittee shall comply with the following:

(a) A rental generator shall remain onsite for a period not to exceed twelve (12) consecutive months.

(b) Any rental generator that replaces a rental generator and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

Compliance with these limits shall render the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII), which are incorporated by reference as 326 IAC 12, not applicable.

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

D.6.4 Record Keeping Requirements

(a) The Permittee shall maintain records of the dates of installation and removal of units Engine1 and Engine2 as each unit is installed and removed.

(b) The Permittee shall maintain records of the make, model, and horsepower of each rental diesel generator brought onto the site.

(c) The Permittee shall maintain records of the fuel type and usage of units Engine1 and Engine2.

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

D.6.5 Reporting Requirements

The Permittee shall report a quarterly summary of the information to document compliance with Condition D.6.2 to the addresses listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, 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).

Modification No. 8:

The former Section D.5 has been renumbered as Section D.7.

Modification No. 9:

A new Section G.1 - Standards of Performance for Stationary Nonmetallic Mineral Processing Plants, has been added as follows:

SECTION G.1 FACILITY OPERATION CONDITIONS - Standards of Performance for Stationary Nonmetallic Mineral Processing Plants

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

(h) A limestone transfer and handling system, approved for construction in 2008, with a nominal throughput of 40 tons of limestone per hour, consisting of the following equipment:

(2) One (1) limestone hopper, receiving limestone from the stockpiles via front end loaders, emissions uncontrolled and exhausting to ambient air.

(3) Three enclosed pipe conveyors, each transferring limestone from the limestone hopper to one (1) of the three (3) limestone day silos, emissions controlled by the limestone day silos bin vent filters.

(4) Three (3) limestone day silos No. 1 - No. 3, each with maximum throughput capacity of 40.0 tons per hour, each equipped with a bin vent filter for particulate control, exhausting to vents 245, 246, and 247, respectively.

(5) Three (3) weigh scales, each with a maximum capacity of 19.7, each receiving material from one of the limestone day silos and transferring limestone to one (1) of three (3) pipe conveyors, all emissions control by the limestone bin vent filters, and exhausting to vents 245, 246, 247.

(6) Three (3) wet ball mill crushers, receiving limestone from weigh scales via the three (3) pipe conveyors, the transfer point is enclosed and emissions are controlled by the limestone day silos bin vent filters, and exhausting to vents 245, 246, and 247.

Under 40 CFR 60, Subpart OOO, the one (1) limestone hopper, three (3) pipe conveyors, three (3) limestone day silos, three (3) weigh scales, and three (3) wet ball mill crushers are considered affected units.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

G.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for limestone material handling equipment except as otherwise specified in 40 CFR Part 60, Subpart OOO.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204

and

Southwest Regional Office
1120 Vincennes Ave
P.O. Box 128
Petersburg, IN 47567

G.1.2 Standards of Performance for Stationary Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart 000, the Permittee shall comply with the provisions of Standards of Performance for Stationary Nonmetallic Mineral Processing Plants, which are incorporated by reference as 326 IAC 12, for the limestone material handling equipment as follows:

(1) 40 CFR 60.670(a)
(2) 40 CFR 60.670(d)
(3) 40 CFR 60.670(e)
(4) 40 CFR 60.670(f)
(5) Table 1 to 40 CFR 60, Subpart OOO
(6) 40 CFR 60.671
(7) 40 CFR 60.672
(8) 40 CFR 60.673(b)
(9) 40 CFR 60.675(a)
(10) 40 CFR 60.675(b)
(11) 40 CFR 60.675(c)
(12) 40 CFR 60.675(d)
(13) 40 CFR 60.675(e)
(14) 40 CFR 60.675(f)
(15) 40 CFR 60.675(g)
(16) 40 CFR 60.675 (h)(1)
(17) 40 CFR 60.676(a)
(18) 40 CFR 60.676(f)
(19) 40 CFR 60.676(g)
(20) 40 CFR 60.676(h)
(21) 40 CFR 60.676 (i)(1)
(22) 40 CFR 60.676(j)
(23) 40 CFR 60.670
(24) 40 CFR 60.670
(25) 40 CFR 60.670

Modification No. 10:

Reporting forms are included as a part of this modification:

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

PM Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No. 1, No. 2, and No. 3.
Parameter: PM Emissions
Limit: Shall be less than 1060.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boiler No. 4
Parameter: PM Emissions
Limit: Shall be less than 1425.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No. 1, No. 2, No. 3, and No. 4
Parameter: NOx Emissions
Limit: Shall be less than 13,7200.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

H_2SO_4 Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No., 1, No. 2, No. 3, and No. 4
Parameter: H_2SO_4 Emissions
Limit: Shall be less than 667.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	H_2SO_4 (tons)	H_2SO_4 (tons)	H_2SO_4 (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Boilers No., 1, No. 2, No. 3, and No. 4
Parameter: PM_{10} Emissions
Limit: Shall be less than 4490.0 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	PM_{10} (tons)	PM_{10} (tons)	PM_{10} (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

Hours of Operation Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Y-pit Pump1 and Y-pit Pump2
Parameter: Hours of Operation
Limit: Shall be less than 10,000 hours, combined, per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	Hours of Operation (tons)	Hours of Operation (tons)	Hours of Operation (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Power Generating, Inc.- Warrick Power Plant
Source Address: 4700 Darlington Road, Newburgh, Indiana 47630
Mailing Address: Building 860E, P.O. Box 10, Newburgh, Indiana 47630-0010
Part 70 Permit No.: T173-6630-00002
SPM Permit No.: 173-22581-00002
Facility: Rental Generators (Engine1 and Engine2)
Parameter: NOx Emissions
Limit: Shall be less than forty (40) tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____

Title / Position:_____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 173-22006-00002 and Significant Permit Modification No. 173-22581-00002. The staff recommend to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Appendix A: Emission Calculations
Summary of Emissions from Scrubber and Boiler Optimization Projects

Company Name: Alcoa Power Generating, Inc - Warrick Power Plant
Address: Junction State Routes 66 and 61, Newburg IN 47630
Significant Source Modification No.: 173-22006-00002
Significant Permit Modification No.: 173-22581-00002
Reviewer: Jenny Acker
Date: September 10, 2007

1. Existing Units

	PM (tpy)	PM10 (tpy)	SO2 (tpy)	NOx (tpy)	CO (tpy)	VOC (tpy)	Sulfuric Acid (tpy)	Lead (tpy)	Beryllium (tpy)	Mercury (tpy)	Fluorides (tpy)
Boilers 1 - 3 - Projected Actuals	595.06	1,591.20	11,901.29	7,537.49	1,051.28	45.18	317.20	0.093	0.017	0.096	68.84
Boiler 1- 3 - Baseline	1,600.00	2,529.02	62,511.75	8,686.19	999.51	31.10	322.95	0.250	0.045	0.084	66.93
ATPA Emissions Increase	< 0	< 0	< 0	< 0	51.77	14.08	< 0	< 0	< 0	0.01	1.91
Boiler 4 - Projected Actuals	1,243.78	2,834.26	38,868.12	4,993.26	64.78	29.33	361.93	0.200	0.035	0.05	43.94
Boiler 4 - Baseline Emissions	1,575.00	2,259.36	42,528.21	5,074.94	47.62	22.73	347.47	0.49	0.088	0.02	45.87
ATPA Emissions Increase	< 0	574.90	< 0	< 0	17.16	6.60	14.46	< 0	< 0	0.03	< 0
Coal Handling - Projected Actuals	397.53	300.44	0	0	0	0	0	0.006	1.09E-03	0	0
Coal Handling - Baseline Emissions	242.44	189.93	0	0	0	0	0	0.004	7.20E-04	0	0
ATPA Emissions Increase	155.09	110.51	0.00	0.00	0.00	0.00	0.00	0.002	3.70E-04	0.00	0.00

2. New Units - Potential to Emit (PTE)

Firewater Booster Pump	0.10	0.10	0.24	2.00	0.67	0.29	0	0	0	0	0
Dry Fly Ash	0.84	0.84	0	0	0	0	0	0.0001	2.34E-05	0	0
Limestone Handling	40.74	37.79	0	0	0	0	0	0	0	0	0
Gypsum Dewatering	8.26	8.26	0	0	0	0	0	0	0	0	0
Haul to Limestone Piles	23.58	7.22	0	0	0	0	0	0	0	0	0
Y-pit Pumps	5.50	5.50	5.13	77.50	6.29	16.70	0	0	0	0	0
Y-pit Haul Roads	349.29	85.49	0	0	0	0	0	0	0	0	0
Totals	428.31	145.20	5.36	79.50	6.95	16.99	0.00	0.0001	2.34E-05	0.00	0.00

3. Hybrid Test (Sum of APTA increases and PTE of New Units)

Sum of ATPA Emissions Increases	155.09	685.41	0.00	0.00	68.93	20.68	14.46	0.002	3.70E-04	0.04	1.91
PTE of New Units	428.31	145.20	5.36	79.50	6.95	16.99	0.00	0.0001	2.34E-05	0.00	0.00
Emissions Increase	**583.40**	**830.62**	5.36	**79.50**	75.88	37.67	**14.46**	0.002	0.00039	0.04	1.91
Significant Emissions Threshold	**25**	**15**	**40**	**40**	**100**	**40**	**7**	**0.6**	**0.0004**	**0.10**	**3**

Appendix A: Emission Calculations
Summary of Emissions from Scrubber and Boiler Optimization Projects (continued)

4. Actual to Future Allowables

	PM (tpy)	PM10 (tpy)	SO2 (tpy)	NOx (tpy)	CO (tpy)	VOC (tpy)	Sulfuric Acid (tpy)	Lead (tpy)	Beryllium (tpy)	Mercury (tpy)	Fluorides (tpy)
Boiler 1- 3 - Baseline	1,600.00	2,529.02		8,686.19			322.95				
Boiler 4 - Baseline Emissions	1,575.00	2,259.36		5,074.94			347.47				
Coal Handling - Baseline Emissions	242.44	189.93		0			0				
Baseline Emissions	3,417.44	4,978.31		13,761.13			670.42				
Boilers 1 - 3 - Future Allowables	1,060.00	4,490.00		13,720.00			677.00				
Boiler 4 - Future Allowables	1,425.00										
Coal Handling - Future Allowables	450.00	340.00		0			0				
Future Allowables	2,935.00	4,830.00		13,720.00			677.00				

5. Significant Emissions Increase of Project

Actual to Future Allowables	-482.44	-148.31		-41.13			6.58				
PTE of New Units	428.31	145.20		79.50			0.00				
Emissions Increase of Project	**-54.13**	**-3.11**		**38.37**			**6.58**				
Significant Emissions Threshold	**25**	**15**		**40**			**7**				

Note:
- The source has not yet determined the specifications of the permanent storage of flyash/gypsum. The storage silos provide temporary storage only.
- In order to accomdate the PTE from the permanent storage of flyash/gypsum, which the source is confident will be under 25 tpy PM/PM10, the future allowable emissions from Boilers 1-3 have been structured such that the emissions increase from the project are negative. This will allow the source the ability to permit the emissions from the permanent storage of flyash/gypsum without necessating adjustments to limits developed during this source/permit modification, and still keep the emissions increase of the project, when including the PTE from the permanent storage below the significant threshold levels.
- The source will submit a source modification application and a permit modification application to incorporate the permanent storage of flyash/gypsum upon final specification determinations and prior to actual permanent storage of flyash/gypsum.
- Y-pit haul road emissions account for transportation to the final permanent storage location of flyash/gypsum and will occur during the period of this project.

Methodology
Note: Coal handling emissions are associated with heat input increases and provided by the source
Baseline emissions provided by the source and based on the following 24 month time periods:
PM/PM10 baseline period = 1/1/02 - 12/31/03
SO2 baseline period = 4/1/03 - 3/31/05
NOx baseline period = 7/1/01 - 6/30/03
CO baseline period = 5/1/04 - 5/31/06

Appendix A: Emission Calculations
Actual to Projected Actual (ATPA)

Company Name: **Alcoa Power Generating, Inc - Warrick Power Plant**
Address: **Junction State Routes 66 and 61, Newburg IN 47630**
Significant Source Modification No.: **173-22006-00002**
Significant Permit Modification No.: **173-22581-00002**
Reviewer: **Jenny Acker**
Date: **September 10, 2007**

Boilers #1 - #3 Rated Capacity after modification (each) = 1,589 MMBtu/hr

Projected annual heat input =	13,223,658 MMBtu/hr		Annual heat input =	13,919,640 MMBtu/hr	
coal burn rate (each) =	78.67 ton/hr	or	689,149 ton/yr	(78.67 ton/hr x 8760 hr/yr)	
Scrubber flow rate (each) =	15,000 gal/hr	or	131,400,000 gal/yr	(15,000 gal/hr x 8760 hrs/yr)	

Pollutant	PM	PM10	SO2	NOx	CO	VOC	Sulfuric Acid	Mercury	Lead	Beryllium	Fluorides
Emission Factor	0.03	0.0558	0.60	0.38	0.053	0.0018	0.016	3.39E+00	154.4	27.7	8.43E-02
	(lb/MMBtu)							lb/BtuE+12	ppm of PM		lb/ton coal
PTE lb/hr (each)	47.67	127.47	953.40	603.82	84.22	3.65	25.42	5.38E-03	0.007	0.00132	6.63
Projected Actuals tpy (each)	198.35	530.40	3,967.10	2,512.50	350.43	15.35	105.79	0.022	0.031	0.0055	22.95

PM emission factor based on NSPS Db limitation
PM10 emission factor based on in-house test results (0.0558 lb PM10 condensible/MMBtu) and assumption that scrubber will remove 10% of condensable. PM10 filterable = PM
PM10 emissions calculated using condensible emissions + PM
SO2 emission factor based on maximum emission rate (6.0 lb/MMBtu) and mimimum removal rate of 90%
NOx emission factor based on burner manufacturer guarantee
CO emission factor - permittee has stated that combustion controls will be instituted, such that CO emissions will not exceed 0.050 lb/MMBtu
VOC emission factor based on in-house test results (0.0018 lb/MMBtu) from combustion and 6.3 ppm organics in H2O which will emit to atmosphere.
Sulfuric Acid emission factor based on engineering estimates
Mercury emission factor of 4.84 lb per trillion Btu and manufacturer guarantee of 30% removal.
Lead emission factor - assumption lead of coal is 15.44 ppm, all lead stays in ash, lead content of the ash would be 154.4 ppm and PM content would be 154.4 ppm lead
Beryllium emission factor - assumption beryllium coal is 2.77ppm, all beryllium lead stays in ash, beryllium of ash would be 27.7 ppm and PM would be 27.7 ppm beryllium
Fluorides emission factor based on uncontrolled PTE of 0.0843 lb/ton of coal and manufacturer guarantee of 21% removal.

Methodology:
PTE of PM, SO2, NOx, CO, Sulfuric Acid (lb/hr) = EF (lb/MMBtu) x rated capacity (MMBtu/hr)
PTE of PM, SO2, NOx, CO, Sulfuric Acid (tpy) = EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) X 1/2000 (lb/ton)

PTE of PM10 (lb/hr) = PTE of PM (lb/hr) + EF (lb/MMBtu) x rated capacity (MMBtu/hr)
PTE of PM10 (tpy) = PTE PM (tpy) + EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) x 1/2000 (lb/ton)

PTE of VOC (lb/hr) = EF (lb/MMBtu) x rated capacity (MMBtu/hr) + scrubber flow rate (gal/hr) x 8.34 (lb/gal) x 6.3 lb VOC/Mmgal H2O
PTE of VOC (tpy) = EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) x 1/2000 (lb/ton) + scrubber flow rate (gal/yr) x 8.34 (lb/gal)
x 6.3 lb VOC/Mmgal H2O x 1/2000 (lb/gal)

PTE of Lead, Beryllium (lb/hr) = PTE PM (lb/hr) x EF (ppm of PM) / 1MM
PTE of Lead, Beryllium (tpy) = PTE PM (tpy) x EF (ppm of PM) / 1MM
PTE of Mercury, Fluorides (lb/hr) = EF (lb/ton of coal) x coal usage (ton/hr)
PTE of Mercury, Fluorides (tpy) = EF (lb/ton of coal) x coal usage (tpy) x 1/2000 (lb/ton)

Appendix A: Emission Calculations
Actual to Projected Actual (ATPA) (continued)

Boilers #4 Rated Capacity after modification =	2,958	MMBtu/hr				
Projected annual heat input =	25,912,080	MMBtu/hr				
coal burn rate (each) =	156	ton/hr	or	1,366,560	ton/yr	(156 ton/hr x 8760 hr/yr)
Scrubber flow rate (each) =	19,740	gal/hr	or	172,922,400	gal/yr	(15,000 gal/hr x 8760 hrs/yr)

Pollutant	PM	PM10	SO2	NOx	CO	VOC	Sulfuric Acid	Mercury	Lead	Beryllium	Fluorides
Emission Factor	0.096	0.1698	6.00	0.3854	0.005	0.0019	0.0275	2.177	154.4	27.7	8.43E-04
	(lb/MMBtu)							lb/BtuE+12	ppm of PM		lb/ton coal
PTE lb/hr	283.97	647.09	8,874.00	1,140.01	14.79	6.66	81.35	6.44E-03	0.044	0.008	0.132
PTE tpy	1,243.78	2,834.26	38,868.12	4,993.26	64.78	29.16	356.29	0.028	0.192	0.034	0.58

PM emission factor based on engineering judgement
PM10 emission factor based on in-house test results (0.1698 lb PM10 condenseble/MMBtu) and assumption that scrubber will remove none of condenseble.
PM10 filterable comprises 51% of PM
SO2 emission factor based on maximum emission rate (6.0 lb/MMBtu) and mimimum removal rate of 50%
NOx emission factor based on burner manufacturer guarantee when SCR is online which will be a requirement
CO emission factor based on in house test results (0.004 lb/MMBtu) from combustion and assumption that after modifications the emissions will not exceed 0.005 lb/hr
VOC emission factor based on in-house test results (0.0019 lb/MMBtu) from combustion and 6.3 ppm organics in H2O which will emit
Sulfuric Acid emission factor based on in-house test results (0.031 lb/MMBtu) and projected removal of %10
Lead emission factor - assumption lead of coal is 15.44 ppm, all lead stays in ash, lead content of the ash would be 154.4 ppm and PM content would be 154.4 ppm lead
Beryllium emission factor - assumption beryllium coal is 2.77ppm, all beryllium lead stays in ash, beryllium of ash would be 27.7 ppm and PM would be 27.7 ppm beryllium
Mercury emission factor based on uncontrolled PTE of 3.11 lb per trillion Btu and manufacturer guarantee of 30% removal.
Fluorides emission factor based on uncontrolled PTE of 0.0843 lb/ton of coal and manufacturer guarantee of 99% removal.

Methodology:
PTE of PM, SO2, NOx, CO, Sulfuric Acid (lb/hr) = EF (lb/MMBtu) x rated capacity (MMBtu/hr)
PTE of PM, SO2, NOx, CO, Sulfuric Acid (tpy) = EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) X 1/2000 (lb/ton)

PTE of PM10 (lb/hr) = PTE of PM (lb/hr)x 0.51+ EF (lb/MMBtu) x rated capacity (MMBtu/hr)
PTE of PM10 (tpy) = PTE PM (tpy) x 0.51 + EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) x 1/2000 (lb/ton)

PTE of VOC (lb/hr) = EF (lb/MMBtu) x rated capacity (MMBtu/hr) + scrubber flow rate (gal/hr) x 8.34 (lb/gal) x 6.3 lb VOC/Mmgal H2O
PTE of VOC (tpy) = EF (lb/MMBtu) x projected annual heat input (MMBtu/yr) x 1/2000 (lb/ton) + scrubber flow rate (gal/yr) x 8.34 (lb/gal)
x 6.3 lb VOC/Mmgal H2O x 1/2000 (lb/gal)

PTE of Lead, Beryllium (lb/hr) = PTE PM (lb/hr) x EF (ppm of PM) / 1MM
PTE of Lead, Beryllium (tpy) = PTE PM (tpy) x EF (ppm of PM) / 1MM

PTE of Mercury, Fluorides (lb/hr) = EF (lb/ton of coal) x coal usage (ton/hr)
PTE of Mercury, Fluorides (tpy) = EF (lb/ton of coal) x coal usage (tpy) x 1/2000 (lb/ton)

Appendix A: Emission Calculations
Internal Combustion Engine - Emergency Fire Pump

Company Name: Alcoa Power Generating, Inc - Warrick Power Plant
Address: Junction State Routes 66 and 61, Newburg IN 47630
Significant Source Modification No.: 173-22006-00002
Significant Permit Modification No.: 173-22581-00002
Reviewer: Jenny Acker
Date: September 10, 2007

Generators and Fire Pumps

Emission Factors NSPS for Model Year 2007-2010 - Emergency Fire Pumps
Between 130 and 560 kw (175 to 750 hp)

Nox -+ NMHC	10.5	g/kwh	7.8	g/hp-hr
CO	3.5	g/kwh	2.6	g/hp-hr
PM-10/PM-2.5/TSP	0.54	lb/hp-hr	0.4	g/hp-hr

SOX Emission Factor	0.00205	lb/hp-hr	With ULSD fuel assume 90% reduction in emissions
VOC Emission Factor	0.00247	lb/hp-hr	

Criteria Pollutant Emissions

					Emissions @ 500 Annual Operating Hours				
Emission Calculations	**Horsepower (hp)**	**Maximum Operating Hours (hr/yr)**	**Maximum Operation (hp-hr/yr)**	**Fuel Usage (gal)**	**NOx (tons/yr)**	**CO (tons/yr)**	**SOx (tons/yr)**	**PM (tons/yr)**	**TOC (tons/yr)**
465 Hp Emergency Fire Pump	465	500	232,500	12,037	1.999	0.666	0.238	0.103	0.287

Methodology:
A factor of 453.54 g/lb was used to convert g/hp-hr to lb/hp-hr
VOC Emission Factor (lb/MMBtu) [AP-42 Gasoline and Diesel Industrial Engines, Table 3.3-1 (10-96)]
A factor of 7000 BTU/hp-hr was used to convert lb/MMBTU to lb/hp-hr
Emission (tons/yr) = [Maximum Operationg (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

Appendix A: Emission Calculations
Internal Combustion Engine - Diesel Fueled Y-Pit Pumps

Company Name: **Alcoa Power Generating, Inc - Warrick Power Plant**
Address: **Junction State Routes 66 and 61, Newburg IN 47630**
Significant Source Modification No.: **173-22006-00002**
Significant Permit Modification No.: **173-22581-00002**
Reviewer: **Jenny Acker**
Date: **September 10, 2007**

	Max. Power Output Horsepower (hp)
Y-pit Pump1	500
Y-pit Pump2	500

S = Weight % Sulfur
0.5

Pollutant Emission Factors *(lb pollutant/Hp-hr)*							
Engine Ratings	PM	PM10	SO_2	NO_x	VOC*	CO	HAPs
< = 600 hp	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.51E-03	6.68E-03	1.49E-03

Potential to Emit Unlimited *(ton/yr)*							
Engine Ratings	PM	PM10	SO_2	NO_x	VOC*	CO	HAPs
Y-pit Pump1	4.82	4.82	4.49	67.89	5.51	14.63	3.27
Y-pit Pump2	4.82	4.82	4.49	67.89	5.51	14.63	3.27
Totals:	9.6	9.6	9.0	135.8	11.0	29.3	6.5

Limited Potential to Emit *(ton/yr)*							
hr/yr 5000	PM	PM10	SO_2	NO_x	VOC*	CO	HAPs
Y-pit Pump1	2.75	2.75	2.56	38.75	3.14	8.35	1.86
Y-pit Pump2	2.75	2.75	2.56	38.75	3.14	8.35	1.86
Totals:	5.5	5.5	5.1	77.5	6.3	16.7	3.7

Methodology
Potential to Emit (ton/yr) = Horsepower rating (Hp) x Emission Factor (lb/Hp-hr) x 8760 hr/yr x 1 ton/2000 lb
Limited Potential to Emit (ton/yr) = Horsepower rating (Hp) x Emission Factor (lb/Hp-hr) x Limited Operating Hours hr/yr x 1 ton/2000 lb

Emission factors are from AP-42, Tables 3.3-1 and 3.3-2 (AP-42, 10/96).

Appendix A: Emission Calculations
Internal Combustion Engine - Diesel Fueled Dredge Pump Engine

Company Name: **Alcoa Power Generating, Inc - Warrick Power Plant**
Address: **Junction State Routes 66 and 61, Newburg IN 47630**
Significant Source Modification No.: **173-22006-00002**
Significant Permit Modification No.: **173-22581-00002**
Reviewer: **Jenny Acker**
Date: **September 10, 2007**

Max. Heat Input (MMBtu/hr)
1.53
1.97

Max. Power Output Horsepower (hp)
600
775

S = Weight % Sulfur
0.5

Pollutant Emission Factors *(lb Pollutant/MMBtu)*							
Engine Ratings	PM	PM10	SO_2	NO_x	VOC*	CO	HAPs
< = 600 hp	0.31	0.31	0.29	4.41	0.36	0.95	1.5E-03
600 hp < >= 775 hp	0.07	0.06	0.51	3.20	0.09	0.85	1.5E-03

Potential to Emit (ton/yr) (for 2 engines)							
Engine Ratings	PM	PM10	SO_2	NO_x	VOC*	CO	HAPs
< = 600 hp	4.15	4.15	3.88	58.98	4.81	12.70	0.02
600 hp < >= 775 hp	1.20	0.99	8.72	55.28	1.55	14.68	0.03

Since NOx is the only pollutant of concern, NOx shall be limited to < 40.0 tpy using the following emissions factors:

For engines < = 600 hp	=	0.60	lbs NOx/gal diesel
For engines 600 hp < >= 775 hp	=	0.43	lbs NOx/gal diesel

Methodology

Potential to Emit (ton/yr) (for 2 engines) = 2 x Max. Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hr/yr x 1 ton/2000 lb

NOx Emission Factor (lb NOx/gal diesel) = AP-42 Emission factor (lb NOx/MMBtu) x Heat Value of Diesel (MMBtu/lb diesel) x Density of Diesel (lbs/gal diesel)

For engines < = 600 hp = 4.41 (lb NOx/MMBtu) x 0.0193 (MMBtu/lb diesel) x 7.1 (lbs/gal diesel)

For engines 600 < > = 775 hp = 3.20 (lb NOx/MMBtu) x 0.0193 (MMBtu/lb diesel) x 7.1 (lbs/gal diesel)

* Assume TOC (total organic compounds) emissions are equal to VOC emissions.
Diesel fuel has a heat value of 19,300 Btu per pound and a density of 7.1 pounds per gallon.
Emission factors for engines 600 Hp < > 775 Hp are from AP-42, Tables 3.4-1, 3.4-3, and 3.4-4 SCC 2-02-004-01 (AP-42, 10/96).
Emission factors for engines Hp< 600 are from AP-42, Tables 3.3-1 and 3.3-2 (AP-42, 10/96).

Appendix A: Emission Calculations
Limestone, Flyash and Gypsum Emissions

Company Name: Alcoa Power Generating, Inc - Warrick Power Plant
Address: Junction State Routes 66 and 61, Newburg IN 47630
Significant Source Modification No.: 173-22006-00002
Significant Permit Modification No.: 173-22581-00002
Reviewer: Jenny Acker
Date: September 10, 2007

1. Summary of Emissions from Limestone Handling

	PM (ton/year)	PM 10 (ton/yr)
Flyash storage silo	0.84	0.84
Hopper Baghouse	20.65	20.65
Silo Bin filters (3 total)	12.64	12.64
Hopper to Truck loading	0.49	0.23
drop to stockpiles	2.43	1.15
loading from stockpiles	2.43	1.15
truck to hopper drop	0.24	0.12
open stockpile	1.86	1.86
gypsum slurry vent	8.26	8.26

2. PTE - Flyash Handling

One storage silo equipped with bin vent filters

air flow (acfm)	loading (grain/dcsf)	PTE PM/PM10 (lb/hr)	PTE PM/PM10 tpy	PTE Lead (tpy)	PTE Beryllium (tpy)
1500	0.015	0.19	0.84	1.30E-04	2.34E-05

Methodology

PTE PM/PM10 (lb/hr) = air flow (acfm) * loading (grain/dscf) * 60 (min/hr) * 1/7000 (gr/lb)
PTE PM/PM10 (tpyr) = PTE PM/PM10 (lb/hr) * 8760 hrs/yr * 1/2000 lb/ton
PTE Lead (tpy) = 154.4 lb lead / 1MM lb PM * PM tpy
PTE Beryllium (tpy) = 27.7 lb beryllium / 1MM lb PM * PM tpy

3. PTE - Limestone/Coal Receiving and Transfer System (Hopper Baghouse) & Limestone Storage Silos

- Limestone will be delivered by barge and unloaded from the barge by crane to a hopper, which will be controlled by a baghouse. Suppression sprays and a flexible rubber curtain will be used when loading from the hopper unto trucks and the loads will be covered with tarps. The loaded trucks will travel by unpaved roads to an open stockpile, where front end loaders will load a hopper, which will feed a pipe conveyor. The conveyor will be controlled by skirt enclosures. The pipe conveyor will take the limestone to three (3) day silos equipped with bin vent filters.

Emission Unit	air flow (acfm)	loading (grain/dcsf)	PTE PM (lb/hr)	1) PTE PM tpy
Hopper Baghouse	50000	0.022	9.43	20.65
2) Silo Bin filters (3 total)	15300	0.022	2.89	12.64

1) 50% of the emissions from the baghouse will be due to coal emissions.
2) acfm is for all 3 bin vents combined, grain loading is per bin vent, PTE is total for all 3.

Methodology

PTE Hopper Baghouse PM/PM10 (lb/hr) = air flow (acfm) * loading (grain/dscf) * 60 (min/hr) * 1/7000 (gr/lb)
PTE Hopper Baghouse PM/PM10 (tpy) = PTE Hopper Baghouse (lb/hr) *8760 hrs/yr * 1/2000 lb/ton * .5
PTE Storage Silos (3) PM/PM10 (lb/hr) = air flow (acfm) * loading (gr/dscf) * 60 (min/hr) * 1/7000 (gr/lb)
PTE Storage Silos (3) PM/PM10 (tpy) = PTE Storage Silos (3) PM/PM10 (lb/hr) * 8760 (days/yr) * 1/2000 (lb/ton)

4. PTE - Fugitive Emissions Annual throughput limit = 350,468 tons/yr limestone

a) Batch Drop Operations - Limestone

Loading from Hopper to truck using a dust suppression spray with a flexible rubber curtain - control efficiency = 80%
Batch drop to stockpile and loading from stockpile - control efficiency = 0% 0%
Stockpile discharge conveyor - control efficiency = 90% 90%

E = k*(0.0032)* ((U/5)^1.3)/((M/2)^1.4)
= *0.0139* lb PM/ton
= *0.0066* lb PM10/ton
where k = 0.74 PM (particle size multiplier)
k= 0.35 PM10 (particle size multiplier)
U = 6.29 mile/hr mean wind speed
M = 0.7 % material moisture content

	PM (ton/yr)		PM10 (ton/yr)	
	Uncontrolled	Controlled	Uncontrolled	Controlled
Hopper to truck	2.43	0.49	1.15	0.23
drop to stockpiles	2.43	2.43	1.15	1.15
truck loading from stockpiles	2.43	2.43	1.15	1.15
truck to hopper to conveyor transfer	2.43	0.24	1.15	0.12

Methodology
Equation for E from AP-42 Chp. 13.2.4 - Aggregate Handling and Storage Piles (11/06)

b) Limestone stockpile fugitive emissions - AP-42, Ch 12.3-5 (05/1983)

E = 1.7 * (s/1.5) [(365-p) / 235] (f/15)
= *7.1886* lb/day/acre
where s = 9 % silt content
f = 10.14 % of time that unobstructed wind speed exceeds 12 mph at the mean pile height
p = 120 number of days with >/= 0.01 in of precipitation

Storage capacity (sc) of site (acres) = 1.42

PM/PM10 = 1.86 tons/year

5. PTE - Gypsum Slurry Dewatering Exhaust Duct

air flow (acfm)	loading (grain/dcsf)	PTE PM/PM10 (lb/hr)	PTE PM/PM10 tpy
10000	0.022	1.89	8.26

Grain loading is based upon the allowable per 40 CFR 60, Subpart OOO

Methodology
PTE exhaust (PM/PM10 lb/hr) = air flow (acfm) * loading (grain/dscf) * 60 (min/hr) * 1/7000 (gr/lb)
PTE exhaust PM/PM10 (tpy) = PTE exhaust (lb/hr) *8760 hrs/yr * 1/2000 lb/ton * .5

Appendix A: Emission Calculations
Haul to Limestone Piles

Company Name: **Alcoa Power Generating, Inc - Warrick Power Plant**
Address: **Junction State Routes 66 and 61, Newburg IN 47630**
Significant Source Modification No.: **173-22006-00002**
Significant Permit Modification No.: **173-22581-00002**
Reviewer: **Jenny Acker**
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Estimated Maximum Production (tons/yr) 350,468

Traffic	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
Loaded Trucks	25	14,019	0.35	4906.55	20.00
Unloaded Trucks	0	14,019	0.35	4906.55	20.00
			Total VMT/yr =	9813.10	

Unpaved Road Emission Factors: AP-42

According to AP-42, Section 13.2.2 Unpaved Roads, November 2006, the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

lbs/VMT Equation: $E= k (s/12)^a (W/3)^b [(365 - P)/365]$

Where:

Particle size multiplier	k	4.9	dimensionless (PM-30 or TSP)	1.5	dimensionless PM-10
surface material silt content (%)	s	12	Table 13.2.2-1		
mean vehicle weight	W	32.50	tons		
Equation constants	a	0.7	PM-30 or TSP Table 13.2.2-2	0.9	PM-10 Table 13.2.2-2
	b	0.45	PM-30 or TSP Table 13.2.2-2	0.45	PM-10 Table 13.2.2-2
days with at least 0.01" precipitation	P	120			

PM Emission Factor = $(4.9) \times (8.5/12)^{0.7} \times (5/3)^{0.45}$ [(365-120)/365] = **9.61** lbs/mile
PM10 Emission Factor = $(1.5) \times (8.5/12)^{0.9} \times (5/3)^{0.45}$ [(365-120)/365] = **2.94** lbs/mile

PTE PM = PM Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs = 47.15 uncontrolled (tpy)
PTE PM10 = PM10 Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs = 14.43 uncontrolled (tpy)

Haul Roads to Limestone Pits will be water resulting in 50% control
PM PTE Controlled = **23.58** controlled (tpy)
PM10 PTE Controlled = **7.22** controlled (tpy)

Methodology:
Vehicle Mile Traveled (miles/yr) = Trip Number (trips/hr) x Round-Trip Distance (mile/trip) x 8760 hrs/yr
Traffic Component (%) = VMT / Total VMT
Component Vehicle Weight = Ave. Weight of Vehicles (ton) x Traffic Component (%)
PTE of PM/PM10 before Control (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors x 1 ton/2000 lbs

Appendix A: Emission Calculations
Y-pit Haul Roads

Company Name: **Alcoa Power Generating, Inc - Warrick Power Plant**
Address: **Junction State Routes 66 and 61, Newburg IN 47630**
Significant Source Modification No.: **173-22006-00002**
Significant Permit Modification No.: **173-22581-00002**
Reviewer: **Jenny Acker**
Date: **September 10, 2007**

1. Summary of Emissions from Travel on Y-pit Haul Road

Haul roads will watered as necessary, providing an assumed control effeciency of 50%.

	Uncontrolled PTE (tpy)		Controlled PTE (tpy)	
	PM	PM10	PM	PM10
Travel on unpaved portion	463.42	125.10	231.71	62.55
Travel on paved portion	235.15	45.87	117.58	22.94
Totals:	**698.57**	**170.97**	**349.29**	**85.49**

2. Emissions from Travel on Unpaved Portion of Road

Traffic	Product Weight (tons/round trip)	[1)] Estimated Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
Loaded Trucks	25	37,440	2	74,880	20.00
Unloaded Trucks	0	37,440	2	74,880	20.00

[1)] Estimated Round Trips/yr = 144 trips/day x 5 day/week x 52 weeks/yr

Total VMT/yr = 149,760

Unpaved Road Emission Factors: AP-42

According to AP-42, Section 13.2.2 Unpaved Roads, November 2006, the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

lbs/VMT Equation: $E = k (s/12)^a (W/3)^b [(365 - P)/365]$

Where:

Particle size multiplier	k	4.9	dimensionless (PM-30 or TSP)	1.5	dimensionless PM-10
surface material silt content (%)	s	6.4	Table 13.2.2-1		
mean vehicle weight	W	32.50	tons		
Equation constants	a	0.7	PM-30 or TSP Table 13.2.2-2	0.9	PM-10 Table 13.2.2-2
	b	0.45	PM-30 or TSP Table 13.2.2-2	0.45	PM-10 Table 13.2.2-2
days with at least 0.01" precipitation	P	120			

PM Emission Factor = **6.19** lbs/mile
PM10 Emission Factor = **1.67** lbs/mile

PTE PM = PM Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs = **463.42** tpy
PTE PM10 = PM10 Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs = **125.10** tpy

Appendix A: Emission Calculations
Y-pit Haul Roads (continued)

3. Emissions from Travel on Paved Portion of Road

Specifications per round trip

Traffic	Product Weight (tons/round trip)	Estimated Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
Loaded Trucks	25	37,440	1	37,440	20.00
Unloaded Trucks	0	37,440	1	37,440	20.00

[1)] Estimated Round Trips/yr = 144 trips/day x 5 day/week x 52 weeks/yr

Total VMT/yr = 74,880

Paved Road Emission Factors: AP-42

According to AP-42, Section 13.2.1 Paved Roads, November 2006, the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4N))$$

where:

E =	emission factor (lb/vehicle mile traveled)			
sL =	sL (non-Winter) x 4 (g/m^2) =	7.4	(g/m^2) (AP-42, Table 13.2.1-3)	
w =	mean vehicle weight (tons) =	32.5	tons	
k =	empirical constant =	0.082	for PM	0.016 for PM10
a =	empirical constant =	0.65		
b =	empirical constant =	1.5		
C =	emission factor for exhaust, brake and tire wear	0.00047	for PM and PM10	
p =	number of days per year with 0.01 inches precipitation	120		
N =	number of days in the period	365		

PM Emission Factor	=	**6.28**	lbs/mile
PM10 Emission Factor	=	**1.23**	lbs/mile
PTE PM = PM Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs	=	**235.15**	tpy
PTE PM10 = PM10 Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs	=	**45.87**	tpy

PTE PM = PM Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs
PTE PM10 = PM10 Emission Factor (lbs/mile) * VMT (miles/yr) x 1 ton/2000 lbs