



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: July 31, 2008

RE: Indiana University / 105-26423-00005

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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) 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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



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Mr. Mike Jenson
Indiana University
820 North Walnut Grove Avenue
Bloomington, Indiana 47405-2206

July 31, 2008

RE: 105-26423-00005
Second Significant Permit Modification to
Part 70 Permit No.: T105-6642-00005

Dear Mr. Jenson:

Indiana University was issued a Part 70 Operating Permit T105-6642-00005 on June 29, 2004, for the operation of a stationary source power plant that supplies the campus with process heat from boilers. The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Indiana University on February 11, 2008, to add an activated carbon and lime injection system with two storage silos for boilers No. 3 (EU-03), No.4 (EU-04) and No. 6 (EU-06), the replacement of an electrostatic precipitator on boiler No. 6 with a baghouse, identified as Boiler 6 Bag, the addition of a baghouse for boiler No. 3, identified as Boiler 3 Bag, and the addition of a baghouse for boiler No. 4, identified as Boiler 4 Bag. In addition, Indiana University filed a petition for administrative review (Cause No. 04-A-J-3399) for Part 70 Operating Permit T105-6642-00005, issued on June 29, 2004. On September 28, 2004, the Office of Air Quality (OAQ) and Indiana University reached a settlement that would resolve the petition for administrative review. Based on this settlement, IDEM has revised several permit conditions to resolve the petition as agreed in the settlement.

The following emission units and pollution control equipment are being added to the facility:

- (a) One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.
- (b) One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.
- (c) Two (2) jet pulse baghouses, constructed in 2008, identified as Boiler 3 Bag and Boiler 4 Bag, both exhausting to stack #002.
- (d) One (1) jet pulse baghouse, constructed in 2008, identified as Boiler 6 Bag, exhausting to stack #003.

Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document. All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire revised Title V Operating Permit, with all modifications and amendments made to it, is being provided.

Mr. Mike Jenson
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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 David Matousek at extension 2-8253 or dial (317) 232-8253.

Sincerely,

Original Signed By:
Tripurari P. Sinha, Ph.D., Section Chief
Permits Branch
Office of Air Quality

Attachments

DJM

cc: File - Monroe County
U.S. EPA, Region V
Monroe County Health Department
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Indiana University
820 North Walnut Grove Avenue
Bloomington, Indiana 47405-2206**

(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.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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.

Operation Permit No.: T105-6642-00005	
Issued by: Original signed by Janet G. McCabe, Assistant Commissioner Permits Branch Office of Air Quality	Issuance Date: June 29, 2004 Expiration Date: June 29, 2009

First Significant Permit Modification No.: 105-24777-00005, issued on January 15, 2008.

Second Significant Permit Modification No.: 105-26423-00005	
Issued by: Original Signed By: Tripurari P. Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Issuance Date: July 31, 2008 Expiration Date: June 29, 2009

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Certification
Emergency Occurrence Report
Quarterly Reports
Quarterly Deviation and Compliance Monitoring Report

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(22)]

The Permittee owns and operates a stationary source power plant that supplies campus with process heat from boilers.

Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
General Source Phone Number: (812) 855-3231
SIC Code: 8221
County Location: Monroe
Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Operating Permit Program
Major Source, under PSD Rules
1 of 28 listed source categories
Major Source, Section 112 of the Clean Air Act

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) natural gas, low-sulfur No. 1 or No. 2 fuel oil fired boiler, identified as EU-07, approved for construction in 2007, with a maximum design capacity of 217 MMBtu per hour when combusting natural gas and 208 MMBtu per hour when combusting fuel oil, and equipped with low NOx burners and induced flue gas recirculation for NOx control, with continuous monitors for monitoring carbon monoxide and NOx, exhausting to stack 002. Under 40 CFR Subpart Db, this is a new affected source.
- (b) Two (2) coal, natural gas, No. 1 or No. 2 fuel oil fired boilers, identified as EU-03 and EU-04, both constructed in 1959, with a maximum design capacity of 125 MMBtu per hour heat input each (operating at a maximum capacity of 100 MMBtu per hour heat input each when combusting coal or a combination of fuels), and with a maximum design capacity of 80 MMBtu per hour heat input each when combusting natural gas and/or fuel oil, each equipped with low NOx burners for natural gas and/or fuel oil, and each with a multiclone and a jet pulse baghouse, identified as Boiler 3 Bag and Boiler 4 Bag, for particulate control, permitted in 2008, when combusting coal and/or fuel oil, both exhausting at stack 002. In addition, the stack exhaust from boilers EU-03 and EU-04 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.
- (c) One (1) natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-05, constructed in 1964 and modified in 1989, with a maximum design capacity of 190 MMBtu per hour heat input, equipped with low NOx burners (two natural gas fired burners at 75 MMBtu per hour heat input each) for natural gas and/or fuel oil, and a multiclone for particulate control when combusting fuel oil, exhausting to stack 002 or 003.
- (d) One (1) coal, natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-06, constructed in 1970, with a maximum design capacity of 190 MMBtu per hour heat input when combusting coal and/or fuel oil, and 150 MMBtu per hour heat input (two natural gas fired burners rated at 75 MMBtu per hour heat input each) when combusting natural gas, equipped with low NOx burners for natural gas and/or fuel oil, a multiclone and a jet pulse

baghouse, identified as Boiler 6 Bag, for particulate control when combusting coal and/or fuel oil, permitted in 2008, and a continuous opacity monitor for monitoring opacity, exhausting to stack 003. In addition, the stack exhaust from boiler EU-06 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.

- (e) One (1) coal storage and handling system, with a maximum design throughput of 200 tons of coal per hour, consisting of the following:
 - (1) One (1) coal truck receiving system, consisting of an interior wet suppression system to control coal dust emissions during coal receiving, and two (2) truck hoppers.
 - (2) Four (4) enclosed belt conveyors, and one (1) enclosed bucket conveyor, with particulate emissions controlled by a fabric filter system, with four (4) dust collectors, identified as DC1 through 4, located internally at various points along the enclosed conveyor system, with all dust collectors exhausting internally.
 - (3) One (1) coal storage silo with a storage capacity of 1,000 tons of coal, with particulate emissions controlled by one (1) dust collector, identified as DC6, exhausting externally at vent 6.

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) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour heat input [326 IAC 6-2]:
 - (1) Twenty-two (22) boilers constructed before 1972, with a combined total heat input of 29.130 MMBtu per hour. [326 IAC 6-2-3(b) and (d)]
 - (2) One (1) boiler constructed in 1977, with a heat input of 0.60 MMBtu per hour. [326 IAC 6-2-3(c)]
 - (3) One (1) boiler constructed in 1981, with a heat input of 0.110 MMBtu per hour. [326 IAC 6-2-3(c)]
 - (4) Fifty-seven (57) boilers constructed after 1983, with a combined heat input of 135.39 MMBtu per hour. [326 IAC 6-2-4(a) and (b)]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3]
- (c) Oil fired emergency generators not exceeding 1,600 horsepower:
 - (1) One (1) emergency generator at MSB 1 rated at 1200 horsepower.
- (d) Two (2) pneumatic ash handling legs, identified as Ash Leg #1 and Ash Leg #2, with a maximum throughput capacity of 0.71 tons of fly ash per hour, emissions are controlled by water spray.
- (e) One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.

- (f) One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.

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).

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, T105-6642-00005, 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.
- (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
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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, 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 T105-6642-00005 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.

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 61-52 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]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 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.

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

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as

necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.8 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.9 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.10 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.11 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 and/or 40 CFR 63).

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

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR 60 and/or 63.

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 has prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (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) The Permittee is not required to follow the specific procedures set out in (a) and (b) above if it and IDEM, OAQ agree to a different schedule of activities to address any noncompliant situation.
- (d) 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 purpose of fee assessment.

The 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(II)) 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(II)) 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.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) 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) 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
 - (2) 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]

- (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 61-52 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 emissions 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).
- (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 (d)(1) and (2) 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.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) natural gas, low-sulfur No. 1 or No. 2 fuel oil fired boiler, identified as EU-07, approved for construction in 2007, with a maximum design capacity of 217 MMBtu per hour when combusting natural gas and 208 MMBtu per hour when combusting fuel oil, and equipped with low NOx burners and induced flue gas recirculation for NOx control, with continuous monitors for monitoring carbon monoxide and NOx, exhausting to stack 002. Under 40 CFR 60, Subpart Db, this is a new affected source.

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

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

D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from boiler EU-07 shall in no case exceed 0.189 pounds of particulate matter per million British thermal units heat input. This limitation is based on the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

where: P_t - PM limit in pounds per MMBtu
 Q - total source permitted capacity in MMBtu/hr
($Q = 847$ MMBtu/hr for this source)

D.1.2 PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, Boiler EU-07 shall be limited as follows:

- (a) Fuel Oil Usage Limit
The input of No. 1 and No. 2 fuel to the new boiler shall be limited to less than 329,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) SO₂
The sulfur content in the No. 1 or No. 2 fuel oil used in Boiler EU-07 shall not exceed 0.1 percent.
- (c) The emissions of PM₁₀ while burning No. 1 or No. 2 fuel oil shall not exceed 3.3 pounds per 1,000 gallons of No. 1 or No. 2 fuel oil burned.
- (d) NO_x
The emissions of NO_x while burning natural gas shall not exceed 36.72 lb/MMCF. The emissions of NO_x while burning No. 1 or No. 2 fuel oil shall not exceed 12.51 lb/Kgal.

Compliance with these limits combined with the potential emissions of emergency generator MSB 1 will limit SO₂ emissions to less than 40 tons per year, PM₁₀ emissions to less than 15 tons per year, and NO_x emissions to less than 40 tons per year from the modification permitted under SSM 105-24626-00005 and will render the requirements of 326 IAC 2-2 (PSD) not applicable for SO₂, PM₁₀, and NO_x.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions shall not exceed 0.5 pounds per million British thermal units (lb/MMBtu) of heat input from boiler EU-07 when combusting No. 1 or No. 2 fuel oil.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan (PMP), in accordance with Section B, Preventive Maintenance Plan, of this permit, is required for these facilities' control devices.

Compliance Determination Requirements

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2(c) and D.1.3 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input for distillate oil combustion or does not exceed a sulfur content of 0.1 percent by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from boiler EU-07, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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

D.1.6 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission (VE) notations of stack exhaust 002 shall be performed once per day during normal daylight operations while boiler EU-07 combusts fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) If abnormal emissions are observed at exhaust 002 while boiler EU-07 combusts fuel oil, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of abnormal emissions that do not violate 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.
- (c) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) 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 the boilers.

D.1.7 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2] [326 IAC 12]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), the Permittee is required to calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring NOx emissions rates from the boiler stack (stack 002) in accordance with 326 IAC 3-5 to demonstrate compliance with Condition D.1.2(d).

- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) Pursuant to 326 IAC 3-5-4(a), if revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.

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, 326 IAC 10-4, 40 CFR 60, or 40 CFR 75.

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

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of monthly fuel usage for natural gas, No. 1 and No. 2 fuel oil combusted in the boiler.
- (b) To document compliance with Conditions D.1.2, D.1.3, and D.1.5, the Permittee shall maintain records in accordance with (1) through (7) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) No. 1 and No. 2 fuel oil usage and natural gas usage since last compliance determination period and NO_x and SO₂ emissions.
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "Responsible Official" as defined by 326 IAC 2-7-1(34); and
 - (4) All fuel sampling and analysis data, pursuant to 326 IAC 7-2, and data collected in accordance with Condition D.1.5.

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (5) Fuel supplier certifications.
- (6) The name of the fuel supplier; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document compliance with Condition D.1.2(d), the Permittee shall maintain records of the emission rates of NO_x in pounds per MMCF and pounds per Kgal based on CEMS data.
- (d) To document compliance with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of the stack 002 exhaust, during times when fuels other than natural gas are combusted. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

- (e) To document compliance with Condition D.1.7, the Permittee shall maintain records, including raw data of all monitoring data and supporting information, for a minimum of five (5) years from the date described in 326 IAC 3-5-7(a). The records shall include the information described in 326 IAC 3-5-7(b).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2(a) and D.1.2(b) shall be submitted to the address listed in Section C - General Reporting Requirements, 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).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (b) Two (2) coal, natural gas, No. 1 or No. 2 fuel oil fired boilers, identified as EU-03 and EU-04, both constructed in 1959, with a maximum design capacity of 125 MMBtu per hour heat input each (operating at a maximum capacity of 100 MMBtu per hour heat input each when combusting coal or a combination of fuels), and with a maximum design capacity of 80 MMBtu per hour heat input each when combusting natural gas and/or fuel oil, each equipped with low NOx burners for natural gas and/or fuel oil, and each with a multiclone and a jet pulse baghouse, identified as Boiler 3 Bag and Boiler 4 Bag, for particulate control, permitted in 2008, when combusting coal and/or fuel oil, both exhausting at stack 002. In addition, the stack exhaust from boilers EU-03 and EU-04 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.
- (c) One (1) natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-05, constructed in 1964 and modified in 1989, with a maximum design capacity of 190 MMBtu per hour heat input, equipped with low NOx burners (two natural gas fired burners at 75 MMBtu per hour heat input each) for natural gas and/or fuel oil, and a multiclone for particulate control when combusting fuel oil, exhausting to stack 002 or 003.

(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 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(b)(Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from EU-03, EU-04, and EU-05, shall not exceed 0.38 pounds of particulate matter per million British thermal units heat input each. This limitation is based on the following equation:

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

where: P_t - PM limit in pounds per MMBtu
C - Maximum ground level concentration
a - Plume rise factor
h - Stack height in feet
Q - total source permitted capacity in MMBtu/hr = 740 MMBtu/hr
N - Number of stacks

D.2.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

- (a) Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from each boiler, EU-03 and EU-04, shall not exceed 6.0 pounds per million British thermal units (lb/MMBtu) of heat input when combusting coal, and when combusting coal and oil simultaneously, and 0.5 pounds per million British thermal units (lb/MMBtu) of heat input when combusting No. 1 or No. 2 fuel oil.
- (b) Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions shall not exceed 0.5 pounds per million British thermal units (lb/MMBtu) of heat input from boiler EU-05 when combusting No. 1 or No. 2 fuel oil.
- (c) The No. 2 fuel oil for EU-05 shall have a maximum sulfur content of five tenths percent (0.5%).

D.2.3 Heat Input Capacity Limitation

Boilers EU-03 and EU-04 shall not operate above 80% of the maximum rated capacity (100 million

Btu per hour of heat input).

D.2.4 Heat Input Capacity Limitations

- (a) Pursuant to 1265 Exemption Qualification 105-8180, issued February 24, 1997, the total heat input to boilers No. 3 and No. 4 when burning coal, natural gas, No. 2 fuel oil, or any combination of these three fuels shall not exceed 100 million British thermal units per hour for each boiler.
- (b) The total heat input to boilers EU-03 and EU-04 with the use of No. 1 fuel oil, by itself or in combination, with any of the fuels listed above shall not exceed 100 million British thermal units per hour for each boiler.

D.2.5 PSD Minor Limit [326 IAC 2-2]

- (a) The total input of natural gas to boiler EU-05 shall be less than 870 MMCF per twelve consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every 3.84 kilo-gallons of No. 1 or No. 2 fuel oil combusted shall be equivalent to 1 MMCF of natural gas based on NO_x emissions and 0.08% sulfur content of No. 1 fuel oil and 0.49% sulfur content of No. 2 fuel oil. The amount of natural gas and natural gas equivalents used shall be determined as follows:

Amount of natural gas and natural gas equivalents used = ((EU-05 No. 1 fuel oil usage in kgal/yr)/(3.84 kgal/MMCF)) + ((EU-05 No. 2 fuel oil usage in kgal/yr)/(3.84 kgal/MMCF)) + (EU-05 natural gas usage in MMCF/yr)

- (b) The total input of No. 2 fuel oil to boiler EU-05 shall be less than 1,120 kgals per twelve consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every kilo-gallon of No. 1 fuel oil combusted shall be equivalent to 5.89 kgal of No. 2 fuel oil based on SO₂ emissions and 0.08% sulfur content of No. 1 fuel oil and 0.49% sulfur content of No. 2 fuel oil, and every MMCF of natural gas burned shall be equivalent to 0.009 kgal of No. 2 fuel oil based on SO₂ emissions and 0.49% sulfur content of No. 2 fuel oil. The amount of No. 2 fuel oil and No. 2 fuel oil equivalents used shall be determined as follows:

Amount of No. 2 fuel oil and No. 2 fuel oil equivalents used = (EU-05 No. 1 fuel oil usage in kgal/yr * 5.89 kgal of No. 2 fuel oil/kgal of No. 1 fuel oil) + (EU-05 No. 2 fuel oil usage in kgal/yr) + (EU-05 natural gas usage in MMCF/yr * 0.009 kgal No. 2 fuel oil/MMCF natural gas)

Compliance with the above limits NO_x and SO₂ to less than 40 tons per twelve consecutive month period with compliance determined at the end of each month and renders 326 IAC 2-2 not applicable.

D.2.6 Operation Standards [40 CFR 279] [329 IAC 13]

All coal burned in boilers EU-03 and EU-04, including coal treated with any additive, shall meet ASTM specifications for classification as coal (ASTM D388).

D.2.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities' control devices.

Compliance Determination Requirements

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 180 days upon initial operation of baghouses Boiler 3 Bag and Boiler 4 Bag, compliance with the PM limitations in Condition D.2.1 shall be determined by a performance stack test conducted on boilers EU-03 and EU-04 while they combust coal, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b) The Permittee shall stack test boiler EU-05 for nitrogen oxide emissions every five (5) years starting from the most recent compliant stack test. During testing, the Permittee shall combust only No. 1 fuel oil.
- (c) Compliance with Conditions D.2.1 will be determined based on the testing schedule in parts (a) and (b) of this condition, utilizing the appropriate methods, or other methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C-Performance Testing.

D.2.9 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit;

- (a) The multiclones for particulate control shall be in operation at all times when boilers EU-03, EU-04, and EU-05 are in operation and EU-05 is combusting oil, and EU-03 and EU-04 are combusting oil and/or coal.
- (b) The baghouses for particulate control shall be in operation at all times (except periods of boiler startup) boilers EU-03 and/or EU-04 are in operation and combusting oil and/or coal. This condition will be in effect after Boiler 3 Bag and Boiler 4 Bag are placed in service.
- (c) One scheduled employee on each daytime shift shall be certified to read visible emissions.

D.2.10 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

- (a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu using a calendar month average when EU-03 and EU-04 are combusting coal, or coal in combination with another fuel.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7, coal sampling and analysis data shall be collected as follows:
 - (1) Coal sampling shall be performed using the methods specified in 326 IAC 3-7-2(a), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e); or
 - (2) Pursuant to 326 IAC 3-7-2(b)(2) and 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; or
 - (3) The Permittee shall meet the minimum sampling requirements specified in 326 IAC 3-7-2(b)(3), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e).
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

D.2.11 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

When EU-03, EU-04, and EU-05 are combusting fuel oil, or fuel oil in combination with natural gas, compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, 326 IAC 7-2, and 326 IAC 7-1.1-2, the Permittee shall demonstrate that the sulfur dioxide do not exceed the equivalent of 0.5 pounds per MMBtu, using a calendar month average.

- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7-4, fuel sampling and analysis data shall be collected as follows:
 - (1) The Permittee may rely upon vendor analysis of fuel delivered, if accompanied by a vendor certification [326 IAC 3-7-4(b)]; or,
 - (2) The Permittee shall perform sampling and analysis of fuel oil samples in accordance with 326 IAC 3-7-4(a).
 - (A) Oil samples shall be collected from the tanker truck load prior to transferring fuel to the storage tank; or
 - (B) Oil samples shall be collected from the storage tank immediately after each addition of fuel to the tank.
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

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

D.2.12 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission (VE) notations of stack exhaust 002 shall be performed once per day during normal daylight operations while boilers EU-03 and EU-04 combust coal and/or fuel oil and the Bag Leak Detection System (BLDS) is not in operation. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission (VE) notations of stack exhaust of EU-05 shall be performed once per day during normal daylight operations while boiler EU-05 combusts fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (c) If abnormal emissions are observed at exhaust 002 while boilers EU-03 and EU-04 combust coal and/or fuel oil, or while EU-05 combusts fuel oil, or if abnormal emissions are observed at exhaust 003 while EU-05 combusts fuel oil after EU-05 begins exhausting to exhaust 003, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of abnormal emissions that do not violate 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) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (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 the boilers.

D.2.13 Monitoring: Multiclones [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the multiclone used in conjunction with boiler EU-05, at least once per day, when boiler EU-05 is in operation and burning fuel oil. When for any one reading, the pressure drop across the multiclone is outside the normal range of 2.0 and 8.0 inches of water or a range established during a 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 multiclones used in conjunction with boilers EU-03 and EU-04, at least once per day, when boilers EU-03 and EU-04 are in operation and burning coal and/or fuel oil. When for any one reading, the pressure drop across the multiclone is outside the normal range of 2.0 and 8.0 inches of water or a range established during a 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. This condition shall no longer be in effect after Boiler 3 Bag and Boiler 4 Bag are placed in service.

D.2.14 Multiclone Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In the event that multiclone 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.2.15 Bag Leak Detection System (BLDS)

- (a) After the installation of the baghouses controlling emissions from boilers EU-03 and EU-04 is complete, the Permittee shall install and operate a continuous bag leak detection system (BLDS) for both pulse jet fabric filter baghouses, identified as Boiler 3 Bag and Boiler 4 Bag. The bag leak detection system shall meet the following requirements:
- (i) The Permittee must install and operate a bag leak detection system for each exhaust stack of the fabric filter.
 - (ii) The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
 - (iii) The bag leak detection system shall be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
 - (iv) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
 - (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
 - (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
 - (vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.
 - (viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (b) If operations continue after bag failure is observed and it will be 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.

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

D.2.16 Record Keeping Requirements

- (a) To document compliance with Conditions D.2.2, D.2.10 and D.2.11, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Condition D.2.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual coal and fuel oil usage since last compliance determination period;
 - (3) Sulfur content, heat content, and ash content;
 - (4) Sulfur dioxide emission rates.
- (b) To document compliance with Section C - Opacity and Conditions D.2.1, D.2.8, D.2.9, and D.2.11, the Permittee shall maintain records in accordance with (1) through (5) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, and in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Data and results from the most recent stack tests;
 - (2) All parametric monitoring readings;
 - (3) Records of the results of the multiclones' inspections (including usage hours);
 - (4) All preventive maintenance measures taken; and
 - (5) Records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.
- (c) To document compliance with Conditions D.2.3 and D.2.4, the Permittee shall maintain records of monthly average heat input (MMBtu per hour) for each boiler.
- (d) To document compliance with Condition D.2.5, the Permittee shall maintain records of fuel usage for boiler EU-05.
- (e) To document compliance with Condition D.2.12, the Permittee shall maintain records of daily visible emission notations of the boiler stack exhausts during operating conditions described in D.2.13. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).
- (f) To document compliance with Condition D.2.7, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (g) To document compliance with Condition D.2.13, the Permittee shall maintain records of the pressure drop across the collectors of the multiclone controlling EU-05. 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 or fuel oil

was not used).

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

D.2.17 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.2.2 in any compliance period when coal or oil was combusted shall be submitted to the address listed in Section C - General Reporting Requirements, 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.
- (b) A quarterly summary of the information to document compliance with Condition D.2.5 shall be submitted to the address listed in Section C - General Reporting Requirements, 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.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (d) One (1) coal, natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-06, constructed in 1970, with a maximum design capacity of 190 MMBtu per hour heat input when combusting coal and/or fuel oil, and 150 MMBtu per hour heat input (two natural gas fired burners rated at 75 MMBtu per hour heat input each) when combusting natural gas, equipped with low NOx burners for natural gas and/or fuel oil, a multiclone and a jet pulse baghouse, identified as Boiler 6 Bag, for particulate control when combusting coal and/or fuel oil, permitted in 2008, and a continuous opacity monitor for monitoring opacity, exhausting to stack 003. In addition, the stack exhaust from boiler EU-06 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.

(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 Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), the PM emissions from EU-06 shall not exceed 0.38 pounds of particulate matter per million British thermal units heat input. This limitation is based on the following equation:

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

where: P_t - PM limit in pounds per MMBtu
C - Maximum ground level concentration
a - Plume rise factor
h - Stack height in feet
Q - total source permitted capacity in MMBtu/hr = 740 MMBtu/hr
N - Number of stacks

D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

- (a) Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from boiler EU-06 shall not exceed 6.0 pounds per million British thermal units (lb/MMBtu) of heat input when combusting coal.
- (b) Pursuant to 326 IAC 7-1.1-2, for facilities (EU-06) combusting coal and oil simultaneously, sulfur dioxide emissions shall not exceed six and zero-tenths (6.0) pounds per million British thermal units (lb/MMBtu) of heat input, and when EU-06 is combusting No. 1 or No. 2 fuel oil, solely, sulfur dioxide emissions shall not exceed 0.5 pounds per million British thermal units (lb/MMBtu) of heat input.

D.3.3 Fuel Usage

Pursuant to 1265 Exemption Qualification 105-8527-00005, issued October 27, 1997, boiler EU-06 may use No. 2 fuel oil as an alternative fuel source because it is cleaner than coal and causes no emissions increase when used in boiler EU-06.

D.3.4 Operation Standards [40 CFR 279] [329 IAC 13]

All coal burned in boiler EU-06, including coal treated with any additive, shall meet ASTM specifications for classification as coal (ASTM D388).

D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities' control devices.

Compliance Determination Requirements

D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 180 days upon initial operation of baghouse Boiler 6 Bag, compliance with the PM limitations in Condition D.3.1 shall be determined by a performance stack test conducted, while boiler EU-06 combusts coal, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.
- (b) Compliance with Condition D.3.1 will be determined based on the testing schedule in part (a) of this condition, utilizing the appropriate methods, or other methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C-Performance Testing.

D.3.7 Particulate and Opacity Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit;

- (a) The electrostatic precipitator shall be operated at all times (except periods of boiler startup) boiler EU-06 is operating and combusting coal and/or oil. This condition will no longer be in effect after Boiler 6 Bag is placed in operation.
- (b) The multiclones for particulate control shall be in operation at all times when boiler EU-06 is in operation and EU-06 is combusting oil and/or coal.
- (c) The baghouses for particulate control shall be in operation at all times (except periods of boiler startup) boiler EU-06 is in operation and combusting oil and/or coal. This condition will be in effect after Boiler 6 Bag is placed in service.
- (d) The ability of the ESP to control particulate emissions shall be monitored continuously, when boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the opacity of emissions with a certified continuous opacity monitor. This condition will no longer be in effect after Boiler 6 Bag is placed in operation.
- (e) The ability of Boiler 6 Bag to control particulate emissions shall be monitored continuously, when boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the opacity of emissions with a certified continuous opacity monitor.

D.3.8 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 12]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring system for boiler EU-06 (stack 003) shall be calibrated, maintained, and operated for measuring opacity which meet all applicable performance specifications of 326 IAC 3-5-2.
- (b) All continuous emission 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.

D.3.9 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

- (a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu using a calendar month average when EU-06 is combusting coal, or coal in combination with another fuel.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7, coal sampling and analysis data shall be collected as follows:

- (1) Coal sampling shall be performed using the methods specified in 326 IAC 3-7-2(a), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e); or
 - (2) Pursuant to 326 IAC 3-7-2(b)(2) and 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; or
 - (3) The Permittee shall meet the minimum sampling requirements specified in 326 IAC 3-7-2(b)(3), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e).
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

D.3.10 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

When EU-06 is combusting fuel oil, but not simultaneously with coal, compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, 326 IAC 7-2, and 326 IAC 7-1.1-2, the Permittee shall demonstrate that the sulfur dioxide do not exceed the equivalent of 0.5 pounds per MMBtu, demonstrated on a calendar month average.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7-4, fuel sampling and analysis data shall be collected as follows:
 - (1) The Permittee may rely upon vendor analysis of fuel delivered, if accompanied by a vendor certification [326 IAC 3-7-4(b)]; or,
 - (2) The Permittee shall perform sampling and analysis of fuel oil samples in accordance with 326 IAC 3-7-4(a).
 - (A) Oil samples shall be collected from the tanker truck load prior to transferring fuel to the storage tank; or
 - (B) Oil samples shall be collected from the storage tank immediately after each addition of fuel to the tank.
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

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

D.3.11 Bag Leak Detection System (BLDS)

- (a) After installation of the baghouse controlling emissions from boiler EU-06 is complete, the Permittee shall install and operate a continuous bag leak detection system (BLDS) for pulse jet fabric filter baghouse Boiler 6 Bag. The bag leak detection system shall meet the following requirements:
 - (i) The Permittee must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

- (ii) The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
 - (iii) The bag leak detection system shall be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
 - (iv) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
 - (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
 - (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
 - (vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.
 - (viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (b) If operations continue after bag failure is observed and it will be 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.

D.3.12 Electrostatic Precipitator Parametric Monitoring [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 boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the primary and secondary voltages and the currents of the transformer-rectifier (T-R) sets. This condition will no longer be in effect after Boiler 6 Bag is placed in operation.
- (b) When for any one reading, operation is outside one of the normal ranges shown below, or a range established during the most recent stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A voltage or current reading outside of the normal 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.
 - (1) Primary voltage: 260 - 300 V
 - (2) Secondary voltage: 35 - 55 kV
 - (3) T-R set primary current: 50 -75 A

This condition will no longer be in effect after Boiler 6 Bag is placed in operation.

D.3.13 Monitoring: Multiclones [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The ability of the multiclones to control particulate emissions from EU-06 shall be monitored at least once per day, when this boiler is in operation and combusting coal and/or fuel oil, by measuring and recording the pressure drop across the collector. This condition will no longer be in effect after Boiler 6 Bag is placed in operation.

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

D.3.14 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide and particulate matter emission rates;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content and heat content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in D.3.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual coal usage since last compliance determination period;
 - (3) Sulfur content, heat content, ash content;
 - (4) Sulfur dioxide emission rates.
- (c) To document compliance with Section C - Opacity and Conditions D.3.1, D.3.7, D.3.8 and D.3.12, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, and in Condition D.3.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Data and results from the most recent stack test(s).
 - (2) All continuous monitoring data, pursuant to 326 IAC 3-5.
 - (3) Records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.

- (d) Pursuant to the Amendment to Operating Permits 53-02-92-0079 through 0084, issued October 19, 1990, operation conditions 9 and 15, daily operating reports, boiler operation logs, and boiler shutdown checklists which are generated in the ordinary course of operation shall be kept and made available upon request of the Office of Air Quality. These records shall be kept for the last 24 month time period.
- (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) All records shall be maintained in accordance with Section C- General Record Keeping Requirements, of this permit.

D.3.15 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.3.2 and D.3.9 in any compliance period when coal, natural gas, or fuel oil was combusted shall be submitted to the address listed in Section C - General Reporting Requirements, 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.
- (b) Quarterly report of opacity exceedances shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, 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) A quarterly summary of the information to document compliance with Conditions D.3.9(a) and D.3.10(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, 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.4 FACILITY OPERATION CONDITIONS

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

- (e) One (1) coal storage and handling system, with a maximum design throughput of 200 tons of coal per hour, consisting of the following:
- (1) One (1) coal truck receiving system, consisting of an interior wet suppression system to control coal dust emissions during coal receiving, and two (2) truck hoppers.
 - (2) Four (4) enclosed belt conveyors, and one (1) enclosed bucket conveyor, with particulate emissions controlled by a fabric filter system, with four (4) dust collectors, identified as DC1 through 4, located internally at various points along the enclosed conveyor system, with all dust collectors exhausting internally.
 - (3) One (1) coal storage silo with a storage capacity of 1,000 tons of coal, with particulate emissions controlled by one (1) dust collector, identified as DC6, exhausting externally at vent 6.

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

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

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the coal storage and handling system shall not exceed 58.5 pounds per hour when operating at a process weight rate of 400,000 pounds per hour as established in the following formula:

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:

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

D.4.2 Fugitive Dust Emissions [326 IAC 6-4]

Pursuant to Minor Source Modification 105-11356-00005, issued July 21, 2000, and 326 IAC 6-4 (Fugitive Dust Emissions), 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.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Pursuant to Minor Source Modification 105-11356-00005, issued July 21, 2000, a Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities' control devices.

Compliance Determination Requirements

D.4.4 Particulate Matter (PM)

Pursuant to Minor Source Modification 105-11356-00005, issued July 21, 2000;

- (a) The coal truck receiving interior wet suppression system shall be in operation and control the PM emissions from the associated equipment at all times that the coal receiving system is in operation.
- (b) The dust collectors (DC1 through DC4), all for PM control, shall be in operation and control the PM emissions from their associated equipment at all times that the coal storage and handling system is in operation.

- (c) All equipment exhausting internally (DC1 through DC4) for the coal storage and handling system shall not exhaust to the atmosphere at any time the system is in operation.
- (d) Dust collector DC6, for PM control, shall be in operation and control the PM emissions from the silo when it is receiving coal.

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

D.4.5 Visible Emissions Notations

- (a) Once per day visible emission notations of the dust collector DC6 vent exhaust shall be performed during normal daylight operations when exhausting to the atmosphere, and when the silo is receiving coal. A trained employee shall record whether emissions are normal or abnormal.
- (b) Once per day visible emission notations of the coal truck receiving system shall be performed during normal daylight operations when either of the two (2) truck hoppers are receiving coal. A trained employee shall record whether emissions are normal or abnormal.
- (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, not counting startup or shut down time.
- (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 any visible emissions of dust are observed from the coal storage and handling system, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of visible emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit.
- (g) If abnormal emissions are observed from the coal storage and handling system, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit.
- (h) If abnormal emissions are observed, 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.

D.4.6 Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

By calendar, quarterly inspections shall be performed to verify the placement, integrity and particle loading of the filter DC6. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.4.7 Record Keeping Requirements

- (a) To document compliance with Condition D.4.5, the Permittee shall maintain records of visible emission notations of the dust collector vent for DC6, and of the coal truck receiving system at each time when coal is being received by the silo and either of the truck hoppers, respectively.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
- (c) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

SECTION D.5 FACILITY OPERATION CONDITIONS - Insignificant Operations

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
 - (1) Twenty-two (22) boilers constructed before 1972, with a combined total heat input of 29.130 MMBtu per hour.
 - (2) One (1) boiler constructed in 1977, with a heat input of 0.60 MMBtu per hour.
 - (3) One (1) boiler constructed in 1981, with a heat input of 0.110 MMBtu per hour.
 - (4) Fifty-seven (57) boilers constructed after 1983, with a combined heat input of 135.39 MMBtu per hour.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (c) Oil fired emergency generators not exceeding 1,600 horsepower:
 - (1) One (1) emergency generator at MSB 1 rated at 1200 horsepower.
- (d) Two (2) pneumatic ash handling legs, identified as Ash Leg #1 and Ash Leg #2, with a maximum throughput capacity of 0.71 tons of fly ash per hour, emissions are controlled by water spray.
- (e) One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.
- (f) One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.

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

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

D.5.1 PSD Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, emergency generator MSB 1 shall be limited as follows:

The operating hours for the emergency generator MSB 1 shall not exceed 250 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits combined with the potential emissions of boiler EU-07 will limit SO₂ emissions to less than 40 tons per year, PM₁₀ emissions to less than 15 tons per year, and NO_x emissions to less than 40 tons per year from the modification permitted under SSM 105-24626-00005 and will render the requirements of 326 IAC 2-2 (PSD) not applicable for SO₂, PM₁₀, and NO_x.

D.5.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

- (a) 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)), part (b), the emission limitations for those indirect heating facilities which were existing and in operation on or before June 8, 1972, shall not exceed the pound per million Btu heat input

(lb/MMBtu) calculated using the following equation:

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

Where C = 50 $\mu\text{g}/\text{m}^3$
Q = total source capacity (MMBtu/hr)
N = number of stacks
a = 0.67
h = average stack height (feet)

Pursuant to 326 IAC 6-2-3(b), the emission limitations for those indirect heating facilities which were existing and in operation on or before June 8, 1972, shall be calculated using the above equation where Q, N, and h include the parameters for all facilities in operation on June 8, 1972.

- (b) Pursuant to 326 IAC 6-2-3(c), the emission limitations for those indirect heating facilities which began operation after June 8, 1972, and before September 21, 1983, shall be calculated using the above equation where Q, N, and h include the parameters for the facility in question and for those facilities which were previously constructed.
- (c) Pursuant to 326 IAC 6-2-3(d), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 lb/MMBtu heat input.
- (d) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from indirect heating facilities constructed after September 21, 1983, shall not exceed the pound per million Btu heat input (lb/MMBtu) calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where Q = total source capacity (MMBtu/hr)

D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator 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.5.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility 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^oC) (one hundred degrees Fahrenheit (100^oF));
 - (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^oC) (one hundred degrees Fahrenheit (100^oF)), 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^oC) (one hundred degrees Fahrenheit (100^oF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^oC) (one hundred twenty degrees Fahrenheit (120^oF)):
- (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 or 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), the owner or operator of a cold cleaning facility 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.

D.5.5 Particulate Emission Limitations for Manufacturing Processes (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from Ash Leg #1 and Ash Leg #2 shall not exceed 3.26 pound per hour each when operating at a process weight rate of 0.71 ton/hr.

The pound per hour limitation was calculated with the following equation:

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

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.5.6 Record Keeping Requirements

- (a) To document compliance with Condition D.5.1, the Permittee shall maintain monthly records of the operating hours for the emergency generator MSB 1.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 shall be submitted to the address listed in Section C - General Reporting Requirements, 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).

SECTION E.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) natural gas or low-sulfur No. 2 fuel oil fired boiler, identified as EU-07, approved for construction in 2007, with a maximum design capacity of 217 MMBtu per hour when combusting natural gas and 208 MMBtu per hour when combusting fuel oil, and equipped with low NOx burners and induced flue gas recirculation for NOx control, exhausting to stack 002. Under 40 CFR 60, Subpart Db this is a new affected source.

(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)]

E.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 the boiler EU-07, except as otherwise specified in 40 CFR Part 60, Subpart Db.
- (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 46204-2251

E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Db] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Db, the Permittee shall comply with the provisions of Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, for the boiler EU-07 as specified as follows:

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 MW (100 million Btu/hour).

(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).

§ 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 (CO₂) 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 SO₂ control 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 SO₂ control 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-m³ (70,000 Btu/hr-ft³).

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-m³ (70,000 Btu/hr-ft³) 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 SO₂ emissions (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 SO₂ emission control, has a SO₂ emission 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 SO₂ emission control, has a SO₂ emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO₂ control 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 SO₂.

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.

(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.

(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 SO₂ emission 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 SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO₂ emission 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 SO₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO₂ emissions limit in paragraph 60.42b(k)(1).

§ 60.43b Standard for particulate matter.

(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)(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 SO₂ or PM emissions is not subject to the PM limits under §60.43b(h)(1).

§ 60.44b Standard for nitrogen oxides.

(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 of this part, 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 nitrogen oxides (expressed as NO₂) in excess of the following emission limits:

Fuel/Steam generating unit type	Nitrogen oxide emission limits ng/J (lb/million Btu) (expressed as NO₂) heat input
(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)

Fuel/Steam generating unit type	Nitrogen oxide emission limits ng/J (lb/million Btu) (expressed as NO ₂) heat input
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil	86 (0.20)
(ii) Residual oil	170 (0.40)

(h) For purposes of paragraph (i) of this section, the nitrogen oxide 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.

(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 NO₂) 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

§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

(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) Units that burn only oil that contains no more than 0.3 weight percent sulfur or fuels with potential sulfur dioxide emission rates of 140 ng/J (0.32 lb/MMBtu) heat input or less may demonstrate compliance by maintaining records of fuel supplier certifications of sulfur content of the fuels burned.

§ 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.

(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.

(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.

(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.

(i) Units burning only oil that contains no more than 0.3 weight percent sulfur or liquid or gaseous fuels with a potential sulfur dioxide emission rates of 140 ng/J (0.32 lb/MMBtu) heat input or less may demonstrate compliance by maintaining fuel supplier certifications of the sulfur content of the fuels burned.

§ 60.47b Emission monitoring for sulfur dioxide.

(f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

(g) Units burning any fuel with a potential sulfur dioxide emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are not required to conduct emissions monitoring if they maintain fuel supplier certifications of the sulfur content of the fuels burned.

§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.

(a) The particulate matter emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction, and as specified in paragraphs (i) and (j) of this section. The nitrogen oxides emission standards under §60.44b apply at all times.

(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 a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or

(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 nitrogen oxides emission rates measured by the continuous nitrogen oxides 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.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span values for nitrogen oxides (PPM)
Natural gas	500
Oil	500
Coal	1,000
Mixtures	$500(x+y)+1,000z$

where:

x is the fraction of total heat input derived from natural gas,
y is the fraction of total heat input derived from oil, and
z is the 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, Method 7A, 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.

(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:

(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.

§ 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,

(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides 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. 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.

(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.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides 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 nitrogen oxides emission rates (expressed as NO₂) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu 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 nitrogen oxides emission rates are in excess of the nitrogen oxides 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 continuous monitoring system.
 - (9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system 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.
- (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 which 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 nitrogen oxides 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 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).
 - (i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.
 - (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.
 - (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.

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

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Indiana University
Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: T105-6642-00005

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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Indiana University
Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: T105-6642-00005

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 Quarterly Report for Boilers EU-03 and EU-04

Source Name: Indiana University
 Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
 Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
 Permit No.: T105-6642-00005, and EQ 105-8180-00005
 Facility: Boilers EU-03 and EU-04
 Parameter: Heat input from all fuels used
 Limit: 100 MMBtu per hour heat input to each boiler

QUARTER/YEAR: _____ **MONTH:** _____

Fuel Type	Amount of fuel burned this month	High heat value of fuel burned this month	Total heat input from fuel this month (MMBtu/mo)	Hours of boiler operation this month (hrs/mo)	Average monthly heat input from fuel this month (MMBtu/hr)
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Boiler EU-03

coal	_____ tons/mo	_____ MMBtu/ton			
natural gas	_____ MMCF/mo	1050 MMBtu/MMCF			
fuel oil	_____ gals/mo	0.139 MMBtu/gal			

Average monthly heat input from all fuels this month (MMBtu/hr)

Boiler EU-04

coal	_____ tons/mo	_____ MMBtu/ton			
natural gas	_____ MMCF/mo	1050 MMBtu/MMCF			
fuel oil	_____ gals/mo	0.139 MMBtu/gal			

Average monthly heat input from all fuels this month (MMBtu/hr)

- No deviation occurred in this quarter.
- Deviation(s) occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report for Boiler EU-05

Source Name: Indiana University
 Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
 Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
 Part 70 Permit No.: T105-6642-00005
 Facility: Boiler EU-05
 Parameters: natural gas usage
 Limits: less than 870 MMCF per twelve consecutive month period

For purposes of determining compliance, every 3.84 kilo-gallons of No.1 or No.2 fuel oil combusted shall be equivalent to 1 MMCF of natural gas based on NOx emissions and 0.08% sulfur content of No.1 fuel oil and 0.49% sulfur content of No.2 fuel oil. The amount of natural gas and natural gas equivalents used shall be determined as follows:

Amount of natural gas and natural gas equivalents used = ((EU-05 No.1 fuel oil usage in kgal/yr)/(3.84 kgal/MMCF)) + ((EU-05 No.2 fuel oil usage in kgal/yr)/ (3.84 kgal/MMCF)) + (EU-05 natural gas usage in MMCF/yr)

QUARTER: _____ **YEAR:** _____

				Column 1	Column 2	Column 1 + Column 2
				This Month	Previous 11 Months	12 Month Total
Month	A No.1 Oil Usage per month (kgals)	B No.2 Oil Usage per month (kgals)	C Nat. Gas Usage per month (MMCF)	NOx (A/3.84)+(B/3.84)+C	NOx	NOx

- No deviation occurred in this quarter.
- Deviation(s) occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report for Boiler EU-05

Source Name: Indiana University
 Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
 Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
 Part 70 Permit No.: T105-6642-00005
 Facility: Boiler EU-05
 Parameters: No. 2 fuel oil usage
 Limits: less than 1,120 kgals per twelve consecutive month period

For purposes of determining compliance, every kilo-gallon of No.1 fuel oil combusted shall be equivalent to 5.89 kgal of No. 2 fuel oil based on SO₂ emissions and 0.08% sulfur content of No. 1 fuel oil and 0.49% sulfur content of No. 2 fuel oil, and every MMCF of natural gas burned shall be equivalent to 0.009 kgal of No. 2 fuel oil based on SO₂ emissions and 0.49% sulfur content of No. 2 fuel oil. The amount of No. 2 fuel oil and No. 2 fuel oil equivalents used shall be determined as follows:

Amount of No. 2 fuel oil and No. 2 fuel oil equivalents used = (EU-05 No.1 fuel oil usage in kgal/yr * 5.89 kgal of No. 2 fuel oil/kgal of No. 1 fuel oil) + (EU-05 No.2 fuel oil usage in kgal/yr) + (EU-05 natural gas usage in MMCF/yr * 0.009 kgal No. 2 fuel oil/MMCF natural gas)

QUARTER: _____ YEAR: _____

Month	A No.1 Oil Usage per month (kgals)	B No.2 Oil Usage per month (kgals)	C Nat. Gas Usage per month (MMCF)	Column 1	Column 2	Column 1 + Column 2
				This Month	Previous 11 Months	12 Month Total
				SO ₂ (A * 5.89) + B + (C * 0.009)	SO ₂	SO ₂

- No deviation occurred in this quarter.
- Deviation(s) occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report for Boiler EU-06

Source Name: Indiana University
 Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
 Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
 Part 70 Permit No.: T105-6642-00005
 Facility: Boiler EU-06
 Parameters: SO₂ emissions, coal usage & analysis
 Limits: SO₂ emissions shall not exceed 6.0 pounds per million Btu when combusting coal, and when coal and fuel oil are used simultaneously; and SO₂ emissions shall not exceed 0.5 pounds per million Btu when combusting fuel oil

QUARTER: _____ **YEAR:** _____

Month	Coal Usage (tons)	Monthly Average Heat Content (MMBtu/lb)	Monthly Average Sulfur Content (%)	SO ₂ Emission Rate (lbs/MMBtu)
		coal	coal	coal
# of Deviations				

- No deviation occurred in this quarter.
- Deviation(s) occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

PART 70 Quarterly Report

Source Name: Indiana University
Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: T105-6642-00005
Facility: Boiler EU07
Parameter: No. 1 and No. 2 fuel oil
Limit: 329,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

PART 70 Quarterly Report

Source Name: Indiana University
Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: T105-6642-00005
Facility: Emergency Generator MSB 1
Parameter: Operating Hours
Limit: Less than 250 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete 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: Indiana University
Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: T105-6642-00005

Months: _____ to _____ Year: _____

Page 1 of 2

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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

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**

Addendum to the Technical Support Document (ATSD)
for a
Part 70 Significant Permit Modification

Source Background and Description
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Source Name:	Indiana University
Source Location:	820 North Walnut Grove Avenue Bloomington, Indiana 47405-2206
County:	Monroe
SIC Code:	8221
Operation Permit No.:	T105-6642-00005
Operation Permit Issuance Date:	June 29, 2004
Significant Permit Modification No.:	105-26423-00005
Permit Reviewer:	David J. Matousek

On June 11, 2008, the Office of Air Quality (OAQ) had a notice published in the Herald Times, Bloomington, Indiana, stating that Indiana University applied to add an activated carbon and lime injection system with two storage silos for boilers No. 3 (EU-03), No. 4 (EU-04) and No. 6 (EU-06), the replacement of an electrostatic precipitator on boiler No. 6 with a baghouse, identified as Boiler 6 Bag, the addition of a baghouse for boiler No. 3, identified as Boiler 3 Bag, and the addition of a baghouse for boiler No. 4, identified as Boiler 4 Bag. In addition, Indiana University filed a petition for administrative review (Cause No. 04-A-J-3399) for Part 70 Operating Permit T105-6642-00005, issued on June 29, 2004. On September 28, 2004, the Office of Air Quality (OAQ) and Indiana University reached a settlement that would resolve the petition for administrative review. Based on this settlement, IDEM has revised several permit conditions to resolve the petition as agreed in the settlement.

The notice also stated that the OAQ proposed to issue a significant permit modification for operation and provided information on how the public could review the proposed permit 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 this permit should be issued as proposed.

Comments and Responses

No public comments were received on the draft permit. However, IDEM decided to make changes to the draft permit to fix three typographical errors. Proposed revisions to the permit follow:

Change #1

Condition D.1.7 requires the Permittee to calibrate, certify, operate and maintain a continuous emission monitoring system in accordance with 326 IAC 3-5 to demonstrate compliance with Condition D.1.2(e). However, Condition D.1.2(e) does not exist. The correct reference is Condition D.1.2(d). Revisions to Condition D.1.7 are shown below:

D.1.7 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2] [326 IAC 12]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), the Permittee is required to calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring NOx emissions rates from the boiler stack (stack 002) in accordance with 326 IAC 3-5 to demonstrate compliance with Condition D.1.2(ed).

...

Change #2

Condition D.1.8(c) requires the Permittee to maintain records of the emission rates of NOx in pounds per MMCF and pounds per Kgal based on CEMS data to show compliance with Condition D.1.2(e). However, Condition D.1.2(e) does not exist. The correct reference is Condition D.1.2(d). Revisions to Condition D.1.8 are shown below:

D.1.8 Record Keeping Requirements

...

- (c) To document compliance with Condition D.1.2(ed), the Permittee shall maintain records of the emission rates of NOx in pounds per MMCF and pounds per Kgal based on CEMS data.

...

Change #3

Condition D.2.17(b) requires the Permittee to submit a quarterly summary to document compliance with Condition D.2.6. This condition intended to require the quarterly summary to document compliance with Condition D.2.5. Revisions to Condition D.2.17 are shown below:

D.2.17 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.2.2 in any compliance period when coal or oil was combusted shall be submitted to the address listed in Section C - General Reporting Requirements, 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.
- (b) A quarterly summary of the information to document compliance with Condition D.2.65 shall be submitted to the address listed in Section C - General Reporting Requirements, 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 technical support document (TSD) for significant permit modification number 105-26423-00005, which was placed on public notice has not been changed. The Office of Air Quality (OAQ) prefers that the technical support document reflects the permit that was placed public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document (ATSD). This accomplishes the desired result of ensuring that these types of concerns are documented and become part of the record regarding this permit decision.

IDEM Contact

Questions regarding this proposed Part 70 Significant Permit Modification can be directed to David J. Matousek at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8253 or toll free at 1-800-451-6027 extension 2-8253.

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

**Technical Support Document (TSD) for a
Part 70 Significant Permit Modification**

Source Description and Location

Source Name:	Indiana University
Source Location:	820 North Walnut Grove Avenue Bloomington, Indiana 47405-2206
County:	Monroe
SIC Code:	8221
Operation Permit No.:	T105-6642-00005
Operation Permit Issuance Date:	June 29, 2004
Significant Permit Modification No.:	105-26423-00005
Permit Reviewer:	David J. Matousek

Existing Approvals

The source was issued Part 70 Operating Permit No. T105-6642-00005 on June 29, 2004. The source has since received the following approvals:

- (a) Interim Significant Source Modification No. 105-247771-00005, issued on October 23, 2007;
- (b) First Significant Source Modification No. 105-24626-00005, issued on November 29, 2007;
- (c) First Significant Permit Modification No. 105-24777-00005, issued on January 15, 2008; and
- (d) First Minor Source Modification No. 105-26077-00005, issued on June 3, 2008.

County Attainment Status

The source is located in Monroe County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

- (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) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
 - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
 - (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to ozone. Monroe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM2.5**
 Monroe County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
 - (c) **Other Criteria Pollutants**
 Monroe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. 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 including a combination of fossil fuel boilers totaling more than 250 million Btu/hr heat input, it is considered 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	Emissions (ton/yr)
PM	> 100
PM ₁₀	> 100
SO ₂	> 100
VOC	> 100
CO	> 100
NO _x	> 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 one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (c) These emissions are based upon the Technical Support Document for significant source modification number 105-24626-00005.

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 (ton/yr)
Hydrogen Chloride	120.00
Hydrogen Fluoride	15.00
Hexane	3.93
Cyanide	0.25
Total	139.18

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 2006 OAQ emission data.

Pollutant	Actual Emissions (ton/yr)
PM ₁₀	57.90
PM _{2.5}	25.50
SO ₂	1,245.40
VOC	1.80
CO	164.40
NO _x	361.20
HAP (Lead)	0.12
Total HAPs	Not Reported

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Indiana University on February 11, 2008, relating to the addition of an activated carbon and lime injection system with two storage silos for boilers No. 3 (EU-03), No. 4 (EU-04) and No. 6 (EU-06), the replacement of an electrostatic precipitator on boiler No. 6 with a baghouse, identified as Boiler 6 Bag, the addition of a baghouse for boiler No. 3, identified as Boiler 3 Bag, and the addition of a baghouse for boiler No. 4, identified as Boiler 4 Bag. In addition, Indiana University filed a petition for administrative review (Cause No. 04-A-J-3399) for Part 70 Operating Permit T105-6642-00005, issued on June 29, 2004. On September 28, 2004, the Office of Air Quality (OAQ) and Indiana University reached a settlement that would resolve the petition for administrative review. Based on this settlement, IDEM has revised several permit conditions to resolve the petition as agreed in the settlement.

The following emission units and pollution control equipment are being added to the facility:

- (a) One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.

- (b) One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.
- (c) Two (2) jet pulse baghouses, constructed in 2008, identified as Boiler 3 Bag and Boiler 4 Bag, both exhausting to stack #002.
- (d) One (1) jet pulse baghouse, constructed in 2008, identified as Boiler 6 Bag, exhausting to stack #003.

Indiana University will remove an existing electrostatic precipitator on Boiler No. 6 (EU-06) and replace it with a baghouse. Indiana University will install baghouses on Boilers No. 3 (EU-03) and No. 4 (EU-04). The new baghouses are equipped with bag leak detection systems. An activated carbon and lime injection system will be installed to provide hydrogen chloride and mercury control in the future. Boiler No. 6 is capable of lime injection at a rate of 600 lbs/hr and activated carbon at a rate of 15 lb/hr. Boilers No. 3 and No. 4 are each capable of lime injection at a rate of 300 lbs/hr and activated carbon at a rate of 7.5 lb/hr. Boilers No. 3, No. 4 and No. 6 have multiclones installed and these units will remain in service. The baghouses are being installed to improve overall control efficiency.

The activated carbon and lime injection systems consist of a totally enclosed pneumatic receiving system, activated carbon and lime storage silos, each equipped with a bin vent baghouse. The applicant stated that the receiving system will not have emissions because it is totally enclosed and empties into the storage silo which is controlled by a baghouse. The only emissions are from the silo vents. The exhaust from the silo vents exhaust indoors only.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this Technical Support 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 reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

PTE Before Controls of the Modification	
Pollutant	Potential To Emit (ton/yr)
PM	23.89
PM ₁₀	10.52
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

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), because the modification does not qualify as an administrative amendment or a minor source modification due to significant changes in testing, monitoring and record keeping.

Permit Level Determination – PSD or Emission Offset

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 significant source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process / Emission Unit	Potential to Emit (ton/yr)					
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x
Fly Ash Silo Vent	1.89	1.89	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #1	9.75	3.41	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #2	9.75	3.41	0.00	0.00	0.00	0.00
Lime Silo Baghouse Vent	1.60	1.60	0.00	0.00	0.00	0.00
Carbon Silo Baghouse Vent	0.04	0.04	0.00	0.00	0.00	0.00
Fugitive Dust - Paved Roads	0.86	0.17	0.00	0.00	0.00	0.00
Total for Modification	23.89	10.52	0.00	0.00	0.00	0.00
Significant Level	25.00	15.00	40.00	40.00	100.00	40.00

This modification to an existing major stationary source is not major because the emissions increases are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

There following federal rules are applicable to the source due to this modification:

- a) 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.

PM/PM10

The uncontrolled potential to emit PM/PM10 for all new emission units are less then 100 tons per year; therefore, CAM does not apply.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

This modification to an existing major stationary source is not major because the emission increases are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Due to the increase in throughput of the ash handling system, the potential to emit PM/PM10 is in excess of the exemption level of five tons per year; therefore, 326 IAC 6-3-2 applies to the two conveying legs of the ash handling system. The emission limit for these processes are as follows:

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from Ash Leg #1 and Ash Leg #2 shall not exceed 3.26 pound per hour each when operating at a process weight rate of 0.71 ton/hr.

The pound per hour limitation was calculated with the following equation:

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

The particulate matter emissions from the Ash Silo vent, the Activated Carbon Silo vent and the Lime Silo vent are each less than 0.551 pound per hour; therefore, they are exempt from 326 IAC 6-3-2.

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.

The following are Compliance Determination Requirements applicable to this modification:

Emission Unit	Parameter	Frequency
EU-03 and EU-04	PM testing	within 180 days of startup of Boiler 3 Bag and Boiler 4 Bag while burning coal / Every (5) years
EU-03 and EU-04	Emission Controls Operation	Boiler 3 Bag and Boiler 4 Bag shall be in operation at all times EU-03 and/or EU-04 are in operation and combusting coal.
EU-06	PM testing	within 180 days of startup of Boiler 6 Bag while burning coal and/or oil / Every (5) years
EU-06	Emission Controls Operation	Boiler 6 Bag shall be in operation at all times EU-06 is in operation and combusting oil and/or coal

The following are Compliance Monitoring Requirements applicable to this modification:

Emission Unit	Parameter	Frequency
EU-03, EU-04 and EU-06	Baghouse bag failure	Continuous use of a Bag Leak Detection System or Visible Emission Notations

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T105-6642-00005. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change #1

Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule became effective on March 16, 2005; therefore, the condition reflecting this rule was incorporated into the permit as original condition B.25. The wording of original condition B.25 has been revised to reflect the exact text of 326 IAC 1-1-6.

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 ~~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).~~

Change #2

Original Condition C.6 has been revised to indicate the exact sections of 326 IAC 1-7 that are not federally enforceable.

C.6 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 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.**

Change #3

The clean unit and pollution control project 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. The OAQ plans to remove the vacated provisions from 326 IAC 2 at the next state rulemaking opportunity. This decision also remanded the "reasonable possibility" standard back to U.S. EPA. 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 (original Conditions C.20 and C.21).

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(II)) 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(II)) 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.
- (d) **If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) 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:**
- (21) 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
- (32) 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]

...

- (f) If the Permittee is required to comply with the recordkeeping provisions of ~~(ed)~~ 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, 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).
- (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 ~~(de)~~(12) and (23) 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.

Change #4

Section A.2 - Emission Units and Pollution Control Equipment Summary has been updated to reflect the addition of the activated carbon and lime injection systems, the removal of the electrostatic precipitator from boiler No. 6 (EU-06), and the addition of baghouses for boilers No. 3, No. 4 and No. 6, identified as EU-03, EU-04 and EU-06. In addition, the source requested the descriptive information of EU-07 to be changed to indicate No. 1 fuel oil as an allowable fuel. No. 1 fuel oil is lower in sulfur and the source did not request a change in the emission or usage limits for the boiler. The proposed revisions follow:

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) natural gas, ~~or~~ low-sulfur **No. 1 or** No. 2 fuel oil fired boiler, identified as EU-07,

approved for construction in 2007, with a maximum design capacity of 217 MMBtu per hour when combusting natural gas and 208 MMBtu per hour when combusting fuel oil, and equipped with low NOx burners and induced flue gas recirculation for NOx control, with continuous monitors for monitoring carbon monoxide and NOx, exhausting to stack 002. Under 40 CFR Subpart Db, this is a new affected source.

- (b) Two (2) coal, natural gas, No. 1 or No. 2 fuel oil fired boilers, identified as EU-03 and EU-04, both constructed in 1959, with a maximum design capacity of 125 MMBtu per hour heat input each (operating at a maximum capacity of 100 MMBtu per hour heat input each when combusting coal or a combination of fuels), and with a maximum design capacity of 80 MMBtu per hour heat input each when combusting natural gas and/or fuel oil, each equipped with low NOx burners for natural gas and/or fuel oil, and each with a multiclone **and a jet pulse baghouse, identified as Boiler 3 Bag and Boiler 4 Bag**, for particulate control, **permitted in 2008**, when combusting coal and/or fuel oil, both exhausting at stack 002. **In addition, the stack exhaust from boilers EU-03 and EU-04 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.**

...

- (d) One (1) coal, natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-06, constructed in 1970, with a maximum design capacity of 190 MMBtu per hour heat input when combusting coal and/or fuel oil, and 150 MMBtu per hour heat input (two natural gas fired burners rated at 75 MMBtu per hour heat input each) when combusting natural gas, equipped with low NOx burners for natural gas and/or fuel oil, a multiclone and ~~an electrostatic precipitator~~ **a jet pulse baghouse, identified as Boiler 6 Bag**, for particulate control when combusting coal and/or fuel oil, **permitted in 2008**, and a continuous opacity monitor for monitoring opacity, exhausting to stack 003. **In addition, the stack exhaust from boiler EU-06 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.**

- (e) One (1) coal storage and handling system, with a maximum design throughput of 200 tons of coal per hour ~~and 240,000 tons of coal per year~~, consisting of the following:

...

Change #5

Section A.3 - Specifically Regulated Insignificant Activities has been modified to show the addition of the pneumatic ash handling legs. The legs are existing but have new requirements. Revisions to Section A.3 follow:

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):

...

- (d) **Two (2) pneumatic ash handling legs, identified as Ash Leg #1 and Ash Leg #2, with a maximum throughput capacity of 0.71 tons of fly ash per hour, emissions are controlled by water spray.**
- (e) **One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.**

- (f) **One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.**

Change #6

The Permittee has requested the addition of No. 1 fuel oil to the descriptive information for boiler EU-07. All references to No. 2 fuel oil in the remaining D.1 conditions have been revised to refer to No. 1 and No. 2 fuel oil. All usage and emission limits remain the same. The revised facility description box and revised Section D.2 conditions follow:

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) natural gas, or low-sulfur **No. 1 or No. 2** fuel oil fired boiler, identified as EU-07, approved for construction in 2007, with a maximum design capacity of 217 MMBtu per hour when combusting natural gas and 208 MMBtu per hour when combusting fuel oil, and equipped with low NOx burners and induced flue gas recirculation for NOx control, with continuous monitors for monitoring carbon monoxide and NOx, exhausting to stack 002. Under 40 CFR 60, Subpart Db, this is a new affected source.

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

D.1.2 PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, Boiler EU-07 shall be limited as follows:

- (a) ~~No. 2~~ Fuel Oil Usage Limit
The input of **No. 1 and No. 2** fuel to the new boiler shall be limited to less than 329,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) SO₂
The sulfur content in the **No. 1 or No. 2** fuel oil used in Boiler EU-07 shall not exceed 0.1 percent.
- (c) The emissions of PM₁₀ while burning **No. 1 or No. 2** fuel oil shall not exceed 3.3 pounds per 1,000 gallons of **No. 1 or No. 2** fuel oil burned.
- (d) NO_x
The emissions of NO_x while burning natural gas shall not exceed 36.72 lb/MMCF. The emissions of NO_x while burning **No. 1 or No. 2** fuel oil shall not exceed 12.51 lb/Kgal.

Compliance with these limits combined with the potential emissions of emergency generator MSB 1 will limit SO₂ emissions to less than 40 tons per year, PM₁₀ emissions to less than 15 tons per year, and NO_x emissions to less than 40 tons per year from the modification permitted under SSM 105-24626-00005 and will render the requirements of 326 IAC 2-2 (PSD) not applicable for SO₂, PM₁₀, and NO_x.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions shall not exceed 0.5 pounds per million British thermal units (lb/MMBtu) of heat input from boiler EU-07 when combusting **No. 1 or No. 2** fuel oil.

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of monthly fuel usage for natural gas, **No. 1** and No. 2 fuel oil combusted in the boiler.

- (b) To document compliance with Conditions D.1.2, D.1.3, and D.1.5, the Permittee shall maintain records in accordance with (1) through (7) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) **No. 1 and No. 2** fuel oil usage and natural gas usage since last compliance determination period and NOx and SO2 emissions.

...

Change #7

The facility description box in Section D.2 has been modified to reflect the revised emission unit and pollution control equipment descriptions as a result of this modification. The revised facility description box follows:

SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (b) Two (2) coal, natural gas, No. 1 or No. 2 fuel oil fired boilers, identified as EU-03 and EU-04, both constructed in 1959, with a maximum design capacity of 125 MMBtu per hour heat input each (operating at a maximum capacity of 100 MMBtu per hour heat input each when combusting coal or a combination of fuels), and with a maximum design capacity of 80 MMBtu per hour heat input each when combusting natural gas and/or fuel oil, each equipped with low NOx burners for natural gas and/or fuel oil, and each with a multiclone **and a jet pulse baghouse, identified as Boiler 3 Bag 3 and Boiler 4 Bag**, for particulate control, **permitted in 2008**, when combusting coal and/or fuel oil, both exhausting at stack 002. **In addition, the stack exhaust from boilers EU-03 and EU-04 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.**
- (c) One (1) natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-05, constructed in 1964 and modified in 1989, with a maximum design capacity of 190 MMBtu per hour heat input, equipped with low NOx burners (two natural gas fired burners at 75 MMBtu per hour heat input each) for natural gas and/or fuel oil, and a multiclone for particulate control when combusting fuel oil, exhausting to stack 002 or 003.

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

Change #8

OP 53-02-92-0083 is not federally enforceable. All references to this permit have been removed from Section D.2 and D.3 conditions. Those conditions affected and not shown in other changes follow:

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

~~Pursuant to OP 53-02-92-0081 and 0082, issued January 12, 1990, and 326 IAC 6-2-3(b)(Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from EU-03, EU-04, and EU-05, shall not exceed 0.38 pounds of particulate matter per million British thermal units heat input each. This limitation is based on the following equation:~~

...

D.2.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

...

- (c) ~~Pursuant to PC (55) 1731 and OP 53-02-92-0083, issued February 15, 1989 and January 5, 1990, for EU-05, the~~ **The No. 2 fuel oil for EU-05** shall have a maximum sulfur content of five tenths percent (0.5%).

D.2.43 Heat Input Capacity Limitation

~~Pursuant to OP 53-02-92-0081 and 0082, issued January 12, 1990, condition 4, b~~Boilers EU-03 and EU-04 shall not operate above 80% of the maximum rated capacity (100 million Btu per hour of heat input).

D.2.140 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

(a) Pursuant to ~~OP 53-02-92-0079 and 0080, issued January 12, 1990, and pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu using a calendar month average when EU-03 and EU-04 are combusting coal, or coal in combination with another fuel.~~

...

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

~~Pursuant to PC (55) 1731 issued February 15, 1989, and OP 53-02-92-0083 and 0084, issued January 5, 1990, and 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), the PM emissions from EU-06 shall not exceed 0.38 pounds of particulate matter per million British thermal units heat input. This limitation is based on the following equation:~~

...

D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

(a) Pursuant to ~~OP 53-02-92-0083 and 0084, issued January 5, 1990, and 326 IAC 7-1.1-2,~~ sulfur dioxide emissions from boiler EU-06 shall not exceed 6.0 pounds per million British thermal units (lb/MMBtu) of heat input when combusting coal.

...

D.3.9 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7] [326 IAC 7-2] [326 IAC 7-1.1-2]

(a) Pursuant to ~~OP 53-02-92-0083 and 0084, issued January 12, 1990, and pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu using a calendar month average when EU-06 is combusting coal, or coal in combination with another fuel.~~

...

Change #9

When boiler EU-05 was modified in 1989, a PSD minor limit was established in Condition D.2.6. Condition D.2.3 is in conflict with Condition D.2.6. Condition D.2.3 does not cite an applicable rule and OP 53-02-92-0083 is not federally enforceable; therefore, Condition D.2.3 has been removed. All references to Condition D.2.3 have been removed from the permit. Condition numbering in the remaining conditions has been updated. Conditions revised by this change and not shown elsewhere follow:

D.2.3 Nitrogen Oxide Emission Limitation

~~Pursuant to PC (55) 1731 and OP 53-02-92-0083, issued February 15, 1989 and January 5, 1990, the nitrogen oxide emissions from boiler EU-05 shall in no case exceed 0.1 pounds per million British thermal units (lb/MMBtu) of heat input when combusting natural gas, No. 1 or No. 2 fuel oil.~~

Change #10

The condition title of original Condition D.2.6 has been modified to more accurately identify the purpose of the condition. The revised condition follows:

D.2.65 Fuel Usage Equivalency Limits PSD Minor Limit [326 IAC 2-2]

...

Change #11

Original Condition D.2.9 has been modified to require particulate matter emission testing for boilers EU-03 and EU-04 within 180 days of startup of the proposed baghouses. References to OP 53-02-92-0079 and original condition D.2.3 have been removed. The revised condition follows:

D.2.98 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~(a) Pursuant to the Amendment to OP 53-02-92-0079 through 0084, issued October 19, 1990, the Permittee shall stack test for particulate matter emissions to determine compliance with 326 IAC 6-2 for boilers EU-03 and EU-04.~~

~~(1) Boiler EU-03 shall be tested for particulate matter emissions every three years starting from the most recent compliant stack test; and~~

~~(2) Boiler EU-04 shall be tested for particulate matter emissions every three years starting from the most recent compliant stack test.~~

~~These tests shall be performed no later than thirty six (36) months after the most recent compliant stack test.~~

(a) Within 180 days upon initial operation of baghouses Boiler 3 Bag and Boiler 4 Bag, compliance with the PM limitations in Condition D.2.1 shall be determined by a performance stack test conducted on boilers EU-03 and EU-04 while they combust coal, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

~~(b) Pursuant to the Amendment to OP 53-02-92-0079 through 0084, issued October 19, 1990, the Permittee shall stack test boiler EU-05 for nitrogen oxide emissions every three five (5) years starting from the most recent compliant stack test. During testing, the Permittee shall combust only No. 1 fuel oil.~~

~~(c) Compliance with Conditions D.2.1 and D.2.3 will be determined based on the testing schedule in parts (a) and (b) of this condition, utilizing the appropriate methods, or other methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.~~

Change #12

Original Condition D.2.10 has been modified to require the use of Boiler 3 Bag and Boiler 4 Bag whenever boilers EU-03 and EU-04 are in operation and combusting oil and/or coal. The revised condition follows:

D.2.409 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit;

(a) The multiclones for particulate control shall be in operation at all times when boilers EU-03, EU-04, and EU-05 are in operation and EU-05 is combusting oil, and EU-03 and EU-04 are combusting oil and/or coal.

(b) The baghouses for particulate control shall be in operation at all times (except periods of boiler startup) boilers EU-03 and/or EU-04 are in operation and combusting oil and/or coal. This condition will be in effect after Boiler 3 Bag and Boiler 4 Bag are placed in service.

~~(c) Pursuant to the Amendment to Operating Permits 53-02-92-0079 through 0084, issued October 19, 1990, operation condition 12, One scheduled employee on each daytime shift shall be certified to read visible emissions.~~

Change #13

Original Condition D.2.13 has been updated to require VE notations only when the Bag Leak Detection System (BLDS) is not working. A separate condition has been established for EU-05. The revised condition follows:

D.2.132 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission (VE) notations of stack exhaust 002 shall be performed once per day during normal daylight operations while boilers EU-03 and EU-04 combust coal and/or fuel oil **and the Bag Leak Detection System (BLDS) is not in operation**, ~~or while EU-05 combusts fuel oil. After EU-05 begins exhausting to stack 003, VE notations for EU-05 shall be performed on exhaust 003 while EU-05 combusts fuel oil.~~ A trained employee shall record whether emissions are normal or abnormal.
- (b) **Visible emission (VE) notations of stack exhaust of EU-05 shall be performed once per day during normal daylight operations while boiler EU-05 combusts fuel oil. A trained employee shall record whether emissions are normal or abnormal.**
- (bc) If abnormal emissions are observed at exhaust 002 while boilers EU-03 and EU-04 combust coal and/or fuel oil, or while EU-05 combusts fuel oil, or if abnormal emissions are observed at exhaust 003 while EU-05 combusts fuel oil after EU-05 begins exhausting to exhaust 003, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of abnormal emissions that do not violate 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.
- (ed) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (de) 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 the boilers.

Change #14

Original Condition D.2.14 has been updated to require the multiclone for boiler EU-05. The installation of the baghouses for boilers EU-03 and EU-04 eliminates the requirement for the operation of these multiclones.

D.2.143 Monitoring: Multiclones [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) ~~The ability of the multiclones to control particulate emissions shall be monitored at least once per day, when their associated units are in operation, by measuring and recording the pressure drop across the collectors.~~
- (b) ~~Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the pressure drop is outside of the normal operating range for the corresponding boiler steam load. A pressure drop reading that is outside normal range is not a deviation from this permit. Failure to take response steps in accordance with Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~
- (a) **The Permittee shall record the pressure drop across the multiclone used in conjunction with boiler EU-05, at least once per day, when boiler EU-05 is in operation and burning fuel oil. When for any one reading, the pressure drop across the multiclone is outside the normal range of 2.0 and 8.0 inches of water or a range established during a 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 multiclones used in conjunction with boilers EU-03 and EU-04, at least once per day, when boilers EU-03 and EU-04 are in operation and burning coal and/or fuel oil. When for any one reading, the pressure drop across the multiclone is outside the normal range of 2.0 and 8.0 inches of water or a range established during a 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. This condition shall no longer be in effect after Boiler 3 Bag and Boiler 4 Bag are placed in service.**

Change #15

The Permittee has elected to install a continuous bag failure detection system on baghouse Boiler 3 Bag and baghouse Boiler 4 Bag. Compliance monitoring Condition D.2.15 has been added for this system. The remaining D.2 conditions have been renumbered. Condition D.2.15 follows:

D.2.15 Bag Leak Detection System (BLDS)

- (a) After the installation of the baghouses controlling emissions from boilers EU-03 and EU-04 is complete, the Permittee shall install and operate a continuous bag leak detection system (BLDS) for both pulse jet fabric filter baghouses, identified as Boiler 3 Bag and Boiler 4 Bag. The bag leak detection system shall meet the following requirements:**
- (i) The Permittee must install and operate a bag leak detection system for each exhaust stack of the fabric filter.**
 - (ii) The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.**
 - (iii) The bag leak detection system shall be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.**
 - (iv) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.**
 - (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.**
 - (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.**
 - (vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.**
 - (viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.**
- (b) If operations continue after bag failure is observed and it will be 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.

Change #16

The record keeping requirements in original Condition D.2.16 have been updated to reflect the addition of the Bag Leak Detection System. Also, the language for VE notations has been updated. Condition references have been updated to reflect the new numbering system. References to OP 53-02-92-0081 and 0082 have been removed. The revised condition follows:

D.2.16 Record Keeping Requirements

- (a) ~~Pursuant to OP 53-02-92-0081 and 0082, issued January 12, 1990, and 1265 Exemption Qualification 105-8180, issued February 24, 1997, and~~ To document compliance with Conditions D.2.2, D.2.140 and D.2.121, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Condition D.2.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual coal and fuel oil usage since last compliance determination period;
 - (3) Sulfur content, heat content, and ash content;
 - (4) Sulfur dioxide emission rates.
- (b) To document compliance with Section C - Opacity and Conditions D.2.1, D.2.98, D.2.109, and D.2.121, the Permittee shall maintain records in accordance with (1) through (45) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, and in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) Data and results from the most recent stack tests;
 - (2) All parametric monitoring readings;
 - (3) Records of the results of the multiclones' inspections (including usage hours); and
 - (4) All preventive maintenance measures taken; and
 - (5) Records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.**
- (c) To document compliance with Conditions D.2.43 and D.2.54, the Permittee shall maintain records of monthly average heat input (MMBtu per hour) for each boiler.
- (d) To document compliance with Condition D.2.65, the Permittee shall maintain records of fuel usage for boiler EU-05.
- (e) To document compliance with Condition D.2.132, the Permittee shall maintain records of daily visible emission notations of the boiler stack 002-exhausts, during times when fuels other than natural gas are combusted **during operating conditions described in D.2.12. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).**

- (f) To document compliance with Condition D.2.87, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (g) To document compliance with Condition D.2.13, the Permittee shall maintain records of the pressure drop across the collectors of the multiclone controlling EU-05. 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 or fuel oil was not used).**
- (gh) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Change #17

The facility description box for Section D.3 has been updated with the revised emission unit and pollution control equipment descriptions. The revised facility description box follows:

SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (d) One (1) coal, natural gas, No. 1 or No. 2 fuel oil fired boiler, identified as EU-06, constructed in 1970, with a maximum design capacity of 190 MMBtu per hour heat input when combusting coal and/or fuel oil, and 150 MMBtu per hour heat input (two natural gas fired burners rated at 75 MMBtu per hour heat input each) when combusting natural gas, equipped with low NOx burners for natural gas and/or fuel oil, a multiclone and ~~an electrostatic precipitator~~ **a jet pulse baghouse, identified as Boiler 6 Bag**, for particulate control when combusting coal and/or fuel oil, **permitted in 2008**, and a continuous opacity monitor for monitoring opacity, exhausting to stack 003. **In addition, the stack exhaust from boiler EU-06 can be treated by an activated carbon injection system for mercury control and a lime injection system for hydrogen chloride control.**

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

Change #18

The electrostatic precipitator for boiler EU-06 will be removed and replaced with a baghouse. Original Condition D.3.5 has been modified to remove conditions related to the electrostatic precipitator. Also, preventive maintenance details are no longer included in the permit. The revised condition follows:

D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

- ~~(a) A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities' and their emission control devices.~~
- ~~(b) The PMP for an electrostatic precipitator shall include the following inspections, performed according to the indicated schedules:~~
 - ~~(1) Plate and electrode alignment, every major maintenance outage, but no less than every 2 years;~~
 - ~~(2) ESP TR set components, performed whenever there is an outage of any nature lasting more than three days, unless such inspections have been performed within the last six months. At a minimum, the following inspections shall be performed:~~
 - ~~(A) Internal inspection of shell for corrosion (including but not limited to doors, hatches, insulator housings, and roof area).~~

- ~~(B) Effectiveness of rapping (including but not limited to buildup of dust on discharge electrodes and plates).~~
 - ~~(C) Gas distribution (including but not limited to buildup of dust on distribution plates and turning vanes).~~
 - ~~(D) Dust accumulation (including but not limited to buildup of dust on shell and support members that could result in grounds or promote advanced corrosion).~~
 - ~~(E) Major misalignment of plates (including but not limited to a visual check of plate alignment).~~
 - ~~(F) Rapper, vibrator and TR set control cabinets (including but not limited to motors and lubrication).~~
 - ~~(G) Rapper assembly (including but not limited to loose bolts, ground wires, water in air lines, and solenoids).~~
 - ~~(H) Vibrator and rapper seals (including but not limited to air in leakage, wear, and deterioration).~~
 - ~~(I) TR set controllers (including but not limited to low voltage trip point, over current trip point, and spark rate).~~
- ~~(3) Air and water infiltration, once per month. The recommended method for this inspection is for audible checks around ash hoppers/hatches, duct expansion joints, and areas of corrosion.~~
- ~~(c) The PMP for a multiclone shall include inspections of the internal components of the multiclone, conducted every 2 years or six thousand (6,000) hours of operation, whichever occurs first, in accordance with the Section B - Preventive Maintenance Plan. Items to be checked include air infiltration, plugging of inlet spinner vanes, outlet tube erosion, deposits on the inside surfaces of the cyclone tubes, and plugging of the bottom of the cyclone tubes.~~

Change #19

A testing requirement has been added to original Condition D.3.6 for Boiler 6 Bag. The revised condition follows:

D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Pursuant to the Amendment to OP 53-02-92-0079 through 0084, issued October 19, 1990, the Permittee shall stack test boiler EU-06 for particulate matter emissions to determine compliance with 326 IAC 6-2 every three years starting from the most recent compliant stack test.

These tests shall be performed no later than thirty six (36) months after the most recent compliant stack test. **Within 180 days upon initial operation of baghouse Boiler 6 Bag, compliance with the PM limitations in Condition D.3.1 shall be determined by a performance stack test conducted, while boiler EU-06 combusts coal, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.**

- (gb) Compliance with Condition D.3.1 will be determined based on the testing schedule in part (a) of this condition, utilizing the appropriate methods, or other methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

Change #20

Original Condition D.3.7 has been revised to remove unnecessary references to the electrostatic precipitator and add conditions for baghouse Boiler 6 Bag. The multiclone for EU-06 is no longer required after construction of Boiler 6 Bag and the condition has been revised to reflect this project. Boiler EU-06 has a continuous opacity monitor (COM) installed. Condition D.3.7(d) is no longer needed because a COM is installed. The revised condition follows:

D.3.7 Particulate and Opacity Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit;

- (a) The electrostatic precipitator shall be operated at all times (except periods of boiler startup) boiler EU-06 is operating and combusting coal and/or oil. **This condition will no longer be in effect after Boiler 6 Bag is placed in operation.**
- (b) The multiclones for particulate control shall be in operation at all times when boiler EU-06 is in operation and EU-06 is combusting oil and/or coal.
- (c) **The baghouses for particulate control shall be in operation at all times (except periods of boiler startup) boiler EU-06 is in operation and combusting oil and/or coal. This condition will be in effect after Boiler 6 Bag is placed in service.**
- (ed) The ability of the ESP to control particulate emissions shall be monitored continuously, when boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the opacity of emissions with a certified continuous opacity monitor. **This condition will no longer be in effect after Boiler 6 Bag is placed in operation.**
- (de) ~~Pursuant to the Amendment to Operating Permits 53-02-92-0079 through 0084, issued October 19, 1990, operation condition 12, one scheduled employee on each daytime shift shall be certified to read visible emissions.~~ **The ability of Boiler 6 Bag to control particulate emissions shall be monitored continuously, when boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the opacity of emissions with a certified continuous opacity monitor.**

Change #21

Original Condition D.3.11 has been removed because the opacity limits listed in the condition for boiler EU-06 conflict with Condition C.2 - Opacity and do not reflect the requirements of 326 IAC 5-1. The condition removed from the permit follows:

D.3.11 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) ~~In the event of opacity exceeding twenty-five percent (25%) 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 twenty-five percent (25%). Examples of expected response steps include, but are not limited to, boiler loads being reduced, and ESP transformer-rectifier (T-R) sets being returned to service.~~
- (b) ~~Opacity readings in excess of twenty-five percent (25%) 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.~~

Change #22

Original Condition D.3.14 - Record Keeping Requirements has been update to remove references to original Condition D.3.11, to reflect current Section D.3 numbering and to include requirements due to the addition of the Bag Leak Detection System (BLDS). The revised condition follows:

D.3.14 Record Keeping Requirements

(a) ~~Pursuant to OP 53-02-92-0083, issued January 5, 1990, and~~ To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide and particulate matter emission rates;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content and heat content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) ~~Pursuant to OP 53-02-92-0083 and 0084, issued January 5, 1990, and~~ To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in D.3.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual coal usage since last compliance determination period;
- (3) Sulfur content, heat content, ash content;
- (4) Sulfur dioxide emission rates.

(c) To document compliance with Section C - Opacity and Conditions D.3.1, D.3.7, D.3.8, ~~D.3.11, and D.3.12, and D.3.13~~, the Permittee shall maintain records in accordance with (1) through (5) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, and in Condition D.3.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) Data and results from the most recent stack test(s).

- (2) All continuous monitoring data, pursuant to 326 IAC 3-5.
- ~~(3) The results of all visible emission (VE) notations and/or Method 9 visible emission readings taken during any periods of COM downtime for stack 003. When the COM is down, the Permittee shall include in this record when a visible emission notation or a Method 9 visible emission reading are not taken and the reason for the lack of a visible emission notation and Method 9 reading (e.g. the process did not operate that day).~~
- ~~(4) All ESP and multiclone parametric monitoring readings.~~
- ~~(5) Records of the results of the ESP and multiclones' inspections (including usage hours).~~
- (3) Records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.**

...

Change #23

Original Condition D.3.12 - Electrostatic Precipitator Parametric Monitoring has been revised and a new condition requiring a bag leak detection system has been added. The revised conditions follow:

D.3.12 Electrostatic Precipitator Parametric Monitoring [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 boiler EU-06 is in operation and combusting coal and/or fuel oil, by measuring and recording the primary and secondary voltages and the currents of the transformer-rectifier (T-R) sets. **This condition will no longer be in effect after Boiler 6 Bag is placed in service.**
- (b) When for any one reading, operation is outside one of the normal ranges shown below, or a range established during the most recent stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A voltage or current reading outside of the normal 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.
 - (1) Primary voltage: 260 - 300 V
 - (2) Secondary voltage: 35 - 55 kV
 - (3) T-R set primary current: 50 -75 A

This condition will no longer be in effect after Boiler 6 Bag is placed in operation.

D.3.11 Bag Leak Detection System (BLDS)

- (a) **After installation of the baghouse controlling emissions from boiler EU-06 is complete, the Permittee shall install and operate a continuous bag leak detection system (BLDS) for pulse jet fabric filter baghouse Boiler 6 Bag. The bag leak detection system shall meet the following requirements:**
 - (i) **The Permittee must install and operate a bag leak detection system for each exhaust stack of the fabric filter.**
 - (ii) **The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.**

- (iii) **The bag leak detection system shall be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.**
 - (iv) **The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.**
 - (v) **The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.**
 - (vi) **The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.**
 - (vii) **For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.**
 - (viii) **Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.**
- (b) **If operations continue after bag failure is observed and it will be 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.**

Change #24

Original Condition D.3.13 has been revised. It will no longer be needed after construction of the Boiler 6 Bag. The revised condition follows:

D.3.13 Monitoring: Multiclones [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- ~~(a) — The ability of the multiclones to control particulate emissions from EU-06 shall be monitored at least once per day, when this boiler is in operation and combusting coal and/or fuel oil, by measuring and recording the pressure drop across the collector. **This condition will no longer be in effect after Boiler 6 Bag is placed in operation.**~~
- ~~(b) — Reasonable response steps shall be taken in accordance with Section C – Response to Excursions or Exceedances whenever the pressure drop is outside of the normal operating range for the corresponding boiler steam load. A pressure drop reading that is outside normal 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.~~

Change #25

The facility description box in Section D.4 has been revised to match the emission unit description in Section A.2. The revised facility description box follows:

SECTION D.4 FACILITY OPERATION CONDITIONS

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

- (e) One (1) coal storage and handling system, with a maximum design throughput of 200 tons of coal per hour and 240,000 tons of coal per year, consisting of the following:

...

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

Change #26

IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Original conditions D.4.6 and D.4.7 have been revised to delete these requirements. The revised conditions follow:

D.4.6 Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) By calendar, quarterly inspections shall be performed to verify the placement, integrity and particle loading of the filter DC6. The Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) ~~Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

D.4.7 Record Keeping Requirements

- (a) To document compliance with Condition D.4.5, the Permittee shall maintain records of visible emission notations of the dust collector vent for DC6, and of the coal truck receiving system at each time when coal is being received by the silo and either of the truck hoppers, respectively.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
- (c) ~~To document compliance with Condition D.4.6, the Permittee shall maintain a log of quarterly inspections.~~
- (d) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

Change #27

The facility description box in Section D.5 has been revised to show the lime and activated carbon injection systems. The revised facility description box follows:

SECTION D.5 FACILITY OPERATION CONDITIONS - Insignificant Operations

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
 - (1) Twenty-two (22) boilers constructed before 1972, with a combined total heat input of 29.130 MMBtu per hour.
 - (2) One (1) boiler constructed in 1977, with a heat input of 0.60 MMBtu per hour.
 - (3) One (1) boiler constructed in 1981, with a heat input of 0.110 MMBtu per hour.
 - (4) Fifty-seven (57) boilers constructed after 1983, with a combined heat input of 135.39 MMBtu per hour.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC

20-6.
(c) Oil fired emergency generators not exceeding 1,600 horsepower:
(1) One (1) emergency generator at MSB 1 rated at 1200 horsepower.
(d) Two (2) pneumatic ash handling legs, identified as Ash Leg #1 and Ash Leg #2, with a maximum throughput capacity of 0.71 tons of fly ash per hour, emissions are controlled by water spray.
(e) One (1) activated carbon injection system, constructed in 2008, consisting of one (1) activated carbon storage silo, with a maximum storage capacity of 52 tons and throughput of 1,200 lbs/hr, identified as Carbon Silo, controlled by a bin vent baghouse, identified as CS Bag, exhausting indoors to stack CS Vent.
(f) One (1) lime injection system, constructed in 2008, consisting of one (1) lime storage silo, with a maximum storage capacity of 25 tons and throughput of 30 lbs/hr, identified as Lime Silo, controlled by a bin vent baghouse, identified as LS Bag, exhausting indoors to stack LS Vent.
(The information describing the process contained in this facility description box is descriptive and does not constitute enforceable conditions.)

Change #28

The lime and carbon systems included in original Condition D.5.5 of SPM 105-24777-00005 does not exist. This condition was included by mistake. The original condition intended to show the particulate matter limitations for the existing ash handling system. The corrected permit condition follows:

D.5.5 Particulate Emission Limitations for Manufacturing Processes (PM) [326 IAC 6-3]

~~Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from the Lime silo or the carbon silo shall not exceed 37 pounds per hour when operating at a process weight rate of 26.7 tons per hour and as established in the following formula:~~

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from Ash Leg #1 and Ash Leg #2 shall not exceed 3.26 pound per hour each when operating at a process weight rate of 0.71 ton/hr.

~~Interpolation 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:~~

The pound per hour limitation was calculated with the following equation:

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

Change #29

Original Condition D.5.6 has been revised to clarify the requirements for maintaining records. The revised condition follows:

D.5.6 Record Keeping Requirements

- (a) To document compliance with Condition D.5.1, the Permittee shall maintain monthly records of the operating hours for the emergency generator MSB 1.
- (b) **All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

Change #30

The quarterly reporting form has been modified to eliminate the reporting requirement for fuel oil usage, heat content of oil, sulfur content of oil, and SO₂ emission rate for oil. The Permittee is required to maintain records by 326 IAC 7-2; but, the reporting requirement is at the discretion of IDEM. IDEM has determined at this time, these reporting requirements are no longer necessary. The Commissioner reserves the right to reinstate the requirement at a later time. The revised reporting form follows:

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

Part 70 Quarterly Report for Boiler EU-06

Source Name: Indiana University
 Source Address: 820 North Walnut Grove, Bloomington, Indiana 47405-2206
 Mailing Address: 1514 East 3rd Street, Bloomington, Indiana 47405-2206
 Part 70 Permit No.: T105-6642-00005
 Facility: Boiler EU-06
 Parameters: SO₂ emissions, coal usage & analysis
 Limits: SO₂ emissions shall not exceed 6.0 pounds per million Btu when combusting coal, and when coal and fuel oil are used simultaneously; and
 SO₂ emissions shall not exceed 0.5 pounds per million Btu when combusting fuel oil

QUARTER: _____ **YEAR:** _____

Month	Coal Usage (tons)	Fuel Oil Usage (gallons)	Monthly Average Heat Content (MMBtu/lb)		Monthly Average Sulfur Content (%)		SO ₂ Emission Rate (lbs/MMBtu)	
			coal	oil	coal	oil	coal	oil
# of Deviations								

...

Appeal Resolution

On June 29, 2004, Indiana University filed a petition for an administrative review (Cause No. 04-A-J-3399) of their Title V Operating Permit No. T105-6642-00005, issued on June 29, 2004. The following modifications reflect the resolution to the appeal issues:

Appeal Resolution Item #1

Original Condition C.18 Actions Related to Noncompliance Demonstrated by a Stack Test has been modified to clarify the requirements for actions related to a noncompliant situation. The revised condition follows:

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) **The Permittee is not required to follow the specific procedures set out in (a) and (b) above if it and IDEM, OAQ agree to a different schedule of activities to address any noncompliant situation.**
- (ed) 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).

Appeal Resolution Item #2

All conditions related to the Preventive Maintenance Plan in the Section D conditions has been modified to reflect the plan applies to the control devices. The revised conditions follow:

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan (**PMP**), in accordance with Section B, Preventive Maintenance Plan, of this permit, is required for these ~~facilities and their control devices~~ **facilities' control devices**.

D.2.87 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these ~~facilities and their control devices~~. **facilities' control devices**.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Pursuant to Minor Source Modification 105-11356-00005, issued July 21, 2000, a Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these ~~facilities and the control device(s)~~. **facilities' control devices**.

Appeal Resolution Item #3

IDEM agreed to remove the reporting requirement for the natural gas fired boiler certification contained in Section D.2 and D.3. Also, references to original Condition D.2.3 have been removed because the condition is no longer valid. In addition, the reporting form has been removed from the permit. The header of the removed form is shown below. The revised conditions follow:

D.2.17 Reporting Requirements

- (a) ~~Pursuant to OP 53-02-92-0081 and 0082, issued January 12, 1990, and 1265 Exemption Qualification 105-8180, issued February 24, 1997, a~~ **A** quarterly summary of the information to document compliance with Condition D.2.2 in any compliance period when coal or oil was combusted, ~~and the natural gas fired boiler certification,~~ shall be submitted

to the address listed in Section C - General Reporting Requirements, 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.

- (b) A quarterly summary of the information to document compliance with Conditions ~~D.2.3~~ and D.2.6 shall be submitted to the address listed in Section C - General Reporting Requirements, 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.

D.3.15 Reporting Requirements

- (a) Pursuant to ~~PC (55) 1731, issued February 15, 1989 and OP 53-02-92-0083 and 0084, issued January 5, 1990,~~ a **A** quarterly summary of the information to document compliance with Conditions D.3.2, **and** D.3.9 ~~and D.3.10~~ in any compliance period when coal, natural gas, or fuel oil was combusted, ~~and the natural gas fired boiler certification,~~ shall be submitted to the address listed in Section C - General Reporting Requirements, 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.
- (b) Quarterly report of opacity exceedances shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, 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) A quarterly summary of the information to document compliance with Conditions D.3.9(a) ~~and D.3.10(a)~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

~~PART 70 OPERATING PERMIT~~
~~SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION~~

Source Name: _____ Indiana University
Source Address: _____ 820 North Walnut Grove, Bloomington, Indiana 47405-2206
Mailing Address: _____ 1514 East 3rd Street, Bloomington, Indiana 47405-2206
Part 70 Permit No.: _____ T105-6642-00005

- _____ Natural Gas Only
 _____ Alternate Fuel burned

From: _____ To: _____

Conclusion and Recommendation

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 105-26423-00005. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

Company Name: Indiana University
Address City IN Zip: 820 North Walnut Grove
 Bloomington, Indiana 47405-2206
Permit Number: SPM 105-26423-00005
Pit ID: 005-00005
Reviewer: David J. Matousek
Date: April 28, 2008

Potential to Emit of the Modification Before Controls (tons/yr)						
Emission Unit	PM	PM10	SO ₂	VOC	CO	NOx
Fly Ash Silo Vent	1.89	1.89	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #1	9.75	3.41	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #2	9.75	3.41	0.00	0.00	0.00	0.00
Lime Silo Baghouse Vent	1.60	1.60	0.00	0.00	0.00	0.00
Carbon Silo Baghouse Vent	0.04	0.04	0.00	0.00	0.00	0.00
Fugitive Dust - Paved Roads	0.86	0.17	0.00	0.00	0.00	0.00
Total for Modification	23.89	10.52	0.00	0.00	0.00	0.00

Limited Potential to Emit of the Modification (tons/yr)						
Emission Unit	PM	PM10	SO ₂	VOC	CO	NOx
Fly Ash Silo Vent	1.89	1.89	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #1	9.75	3.41	0.00	0.00	0.00	0.00
Fly Ash Conveying Leg #2	9.75	3.41	0.00	0.00	0.00	0.00
Lime Silo Baghouse Vent	1.60	1.60	0.00	0.00	0.00	0.00
Carbon Silo Baghouse Vent	0.04	0.04	0.00	0.00	0.00	0.00
Fugitive Dust - Paved Roads	0.86	0.17	0.00	0.00	0.00	0.00
Total for Modification	23.89	10.52	0.00	0.00	0.00	0.00

Notes:

- 1) The uncontrolled emissions from the ash silo vent, the lime silo vent and the activated carbon silo vent is less than 0.551 lb/hr. These units are considered exempt units. The limited potential to emit, shown in the table above, is before control because they are exempt units and no rules apply.
- 2) The limited potential to emit, shown in the table above, is before control for the ash conveying system. These systems can comply with the 326 IAC 6-3-2 limit without control.

Appendix A: Emissions Summary Sheet
Company Name: Indiana University
Address City IN Zip: 820 North Walnut Grove
Bloomington, Indiana 47405-2206
Permit Number: SPM 105-26423-00005
Pit ID: 005-00005
Reviewer: David J. Matousek
Date: April 28, 2008

1. PM/PM10 Emissions

Process Step	Throughput (ton/yr)	PM Emission Factor (lb/ton)	PTE of PM (ton/yr)	PM10 Emission Factor (lb/ton)	PTE of PM10 (ton/yr)	Overall Control Efficiency (%)	PM after Control (ton/yr)	PM10 after Control (ton/yr)	Uncontrolled PM10 (lb/hr)	326 IAC 6-3-2 Limit (lb/hr)	Comply with 326 IAC 6-3-2 without control
Ash Silo Vent	6,208.50	0.61	1.89	0.61	1.89	95%	0.09	0.09	0.43	Exempt	
Conveyor to Ash Trough (Leg #1)	6,208.50	3.14	9.75	1.10	3.41	40%	5.85	2.05	0.78	3.47	YES
Conveyor from Ash Trough to Truck (Leg #2)	6,208.50	3.14	9.75	1.10	3.41	40%	5.85	2.05	0.78	3.47	YES
Total for Modification			21.39		8.71		11.79	4.19			

Methodology

- 1) The ash silo is existing and is controlled by a baghouse with a 100% capture efficiency and 95% control efficiency. No modifications are proposed for this baghouse.
- 2) Ash storage and conveyance emissions are based on 6,208.5 tons/year of fly ash processed.
- 3) The ash silo and conveying system has not been modified.
- 4) The applicant provided an estimate of the control efficiency of water application at the transfer points. This efficiency was taken from an Iowa DNR Guidance Document, Title V Operating Permit Control Efficiency Table.
- 5) All particulate matter is assumed to be PM10.
- 6) PTE of PM/PM10, ton/yr = (Throughput, ton/yr) x (Emission Factor, lb/ton) x (1 ton/200lb)
- 7) PM/PM10 after control, ton/yr = (PTE of PM/PM10, ton/yr) x (1 - control efficiency)
- 8) Uncontrolled PM/PM10, lb/hr = (PTE of PM/PM10, ton/yr) x (2000 lb/ton) ÷ (8760 hr/yr)
- 9) 326 IAC 6-3-2 limit, lb/hr = 4.10 x (throughput, ton/hr) ^0.67 - (Ash Silo Vent has uncontrolled PM/PM10 emissions less than 0.551 lb/hr and is exempt.)
- 10) Throughput, ton/hr = (throughput, ton/yr) ÷ 8760 hr/yr
- 11) Emission factors are based on U.S. EPA, AP-42, Table 11.12-2, SCC 3-05-016-26 for the ash silo vent and SCC 3-06-011-17 for conveying, dated June 2006

Appendix A: Emissions Summary Sheet

Company Name: Indiana University
Address City IN Zip: 820 North Walnut Grove
Bloomington, Indiana 47405-2206
Permit Number: SPM 105-26423-00005
Plt ID: 005-00005
Reviewer: David J. Matousek
Date: April 28, 2008

1. PM/PM10 Emissions

Process Step	Throughput (lb/hr)	Throughput (ton/yr)	Emission Factor (lb/ton)	PTE of PM/PM10 (ton/yr)	Overall Control Efficiency (%)	PM/PM10 after Control (ton/yr)	Uncontrolled PM/PM10 (lb/hr)	326 IAC 6-3-2 Limit (lb/hr)
Lime Silo Vent	1200.00	5,256.000	0.61	1.60	99.0%	0.02	0.37	Exempt
Carbon Silo Vent	30.00	131.400	0.61	0.04	99.0%	0.00	0.01	Exempt
Total for Modification				1.64		0.02		

Methodology

- 1) The ash silo is existing and is controlled by a baghouse with a 100% capture efficiency and 95% control efficiency. No modifications are proposed for this baghouse.
- 2) Ash storage and conveyance emissions are based on 6,208.5 tons/year of fly ash processed.
- 3) The ash silo and conveyance system has not been modified.
- 4) The applicant provided an estimate of the control efficiency of water application at the transfer points. This efficiency was taken from an Iowa DNR Guidance Document, Title V Operating Permit Control Efficiency Table.
- 5) All particulate matter is assumed to be PM10.
- 6) Throughput, ton/yr = (Throughput, lb/hr) x (1 ton/2000 lb) x (8,760 hr/yr)
- 7) PTE of PM/PM10, ton/yr = (Throughput, ton/yr) x (Emission Factor, lb/ton) x (1ton/2000lb)
- 8) PM/PM10 after Control, ton/yr = (PTE of PM/PM10, ton/yr) x (1 - Control Efficiency)
- 9) PM/PM10 after Control for the carbon silo is shown as zero due to significant figures.
- 10) Uncontrolled PM/PM10, lb/hr = (PTE of PM/PM10, ton/yr) x (2000 lb/ton) ÷ (8760 hr/yr)
- 11) 326 IAC 6-3-2 does not apply to the lime silo or carbon silo vents..
- 12) Emission factors are based on U.S. EPA AP-42, Table 11.17-4, SCC 3-05-016-26, dated February 1998.

Appendix A: Emissions Summary Sheet

Company Name: Indiana University
Address City IN Zip: 820 North Walnut Grove
 Bloomington, Indiana 47405-2206
Permit Number: SPM 105-26423-00005
Plt ID: 005-00005
Reviewer: David J. Matousek
Date: April 28, 2008

1. Emission Factors: AP-42

According to AP-42, Chapter 13.2.1 - Paved Roads (12/03), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4 \times 365))$$

where:

E = emission factor (lb/vehicle mile traveled)	
sL (non-Winter) = road surface silt loading (g/m ²) =	0.6 (g/m ²) (AP-42, Table 13.2.1-3)
sL (Winter) = sL (non-Winter) x 4 (g/m ²) =	2.4 (g/m ²) (AP-42, Table 13.2.1-3)
w = mean vehicle weight (tons) =	30.0 tons
k = empirical constant =	0.082 for PM and 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	115

Non-Winter Emission Factor

PM Emission Factor (non-Winter) =	$(0.082 \times (sL/2)^a \times (w / 3)^b - C) \times (1 - p/1460) =$	1.09 lbs/mile
PM10 Emission Factor (non-Winter) =	$(0.016 \times (sL/2)^a \times (w / 3)^b - C) \times (1 - p/1460) =$	0.21 lbs/mile

Winter Emission Factor

PM Emission Factor (Winter) =	$(0.082 \times (sL/2)^a \times (w / 3)^b - C) \times (1 - p/1460) =$	2.69 lbs/mile
PM10 Emission Factor (Winter) =	$(0.016 \times (sL/2)^a \times (w / 3)^b - C) \times (1 - p/1460) =$	0.52 lbs/mile

Average Annual Emission Factor

PM Emission Factor (Average Annual) = ((PM Emission Factor (non-Winter) x 9) + (PM Emission Factor (Winter) x 3))/12	
PM Emission Factor (Average Annual) =	1.49 lbs/mile
PM10 Emission Factor (Average Annual) = ((PM10 Emission Factor (non-Winter) x 9) + (PM10 Emission Factor (Winter) x 3))/12	
PM10 Emission Factor (Average Annual) =	0.29 lbs/mile

2. Potential to Emit (PTE) of PM/PM10 from Paved Roads:

Vehicle Type	Ave Weight of Vehicles* (tons)	Estimated Trips* (trips/yr)	Round Trip Distance* (feet/trip)	Vehicle Mile Traveled (VMT) (miles/yr)	PM Emission Factor (lb/mile)	PTE of PM (tons/yr)	PM10 Emission Factor (lb/mile)	PTE of PM10 (tons/yr)
Lime Receiving	30.00	263	10,560	526.00	1.49	0.39	0.29	0.08
Carbon Receiving	30.00	7	10,560	14.00	1.49	0.01	0.29	0.00
Fly Ash Hauling	30.00	310	10,560	620.00	1.49	0.46	0.29	0.09
Total Emissions						0.86		0.17

* This information is provided by the source.

Methodology

- Vehicle Mile Traveled (mile/yr) = Estimated Trips (trips/yr) x Round Trip Distance (feet/trip) x mile / 5,280 ft
- PTE of PM/PM10 (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors (Average Annual) x 1 ton/2000 lbs
- The estimated round trips for lime receiving is based on the lime needed to achieve 90% HCL removal from the boiler effluent.
- The estimated round trips for carbon is based on the carbon needed to achieve 50 mercury removal from the boiler effluent.
- The amount of fly ash generated is based on all of the lime and carbon is converted into fly ash.
- The estimated round trips for fly ash is based on the increase in fly ash resulting from the addition of lime and carbon and the increased capture efficiency of the pollution control devices.