INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 9, 2007

RE: Duke Energy Indiana, Inc.-Gallagher Generating Station / 043-22712-00004

FROM: Nisha Sizemore
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, Room 1049, 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.

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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 impractible 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.

Enclosures
FNTV-PMOD.doc 03/23/06

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Indianapolis, Indiana 46204-2251
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(800) 451-6027
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April 9, 2007

Mr. Patrick Coughlin
Duke Energy Indiana, Inc. – Gallagher Generating Station
1000 E. Main Street
Plainfield, IN 46168

Re: 043-22712-00004
Second Significant Permit Modification to
Part 70 No.: T 043-7244-00004

Dear Mr. Patrick Coughlin:

Duke Energy Indiana, Inc. (formerly known as PSI Energy, Inc.) – Gallagher Generating Station was issued a Part 70 permit on July 1, 2004 for a stationary electric utility generating station. A letter requesting changes to this permit was received on February 23, 2006. 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.

The modification consists of the addition of a fly ash disposal system and associated compliance monitoring requirements.

All other conditions of the permit shall remain unchanged and in effect. Please find a copy of the updated permit enclosed.

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, please contact Kristen Layton, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027 and ask for Kristen Layton or extension 3-3031, or dial (317) 233-3031.

Sincerely,

Original document signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
KRL
cc: File - Floyd County
U.S. EPA, Region V
Floyd County Health Department
Air Compliance Section Inspector – Dan Hancock
Compliance Data Section
Administrative and Development

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Duke Energy Indiana, Inc. - Gallagher Generating Station
Jackson Street
New Albany, Indiana 47150

(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.: T043-7244-00004	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: July 1, 2004 Expiration Date: July 1, 2009

First Significant Permit Modification No.: 043-22575-00004, Issued on November 3, 2006.

Second Significant Permit Modification No.: 043-22712-00004	
Issued by: *Original document signed by* Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: April 9, 2007 Expiration Date: July 1, 2009

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Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report

Appendix A: Acid Rain Permit

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(21)]

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

Source Address:	Jackson Street, New Albany, Indiana 47150
Mailing Address:	c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Source Telephone:	(317) 838-2108
SIC Code:	4911
County Location:	Floyd
Source Location Status:	Nonattainment for Ozone under the 8 hour standard Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, under Emission Offset and Nonattainment NSR Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 1 in 1993. The existing ESP on Boiler No. 1 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 2 in 1993. The existing ESP on Boiler No. 2 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 3 in 1993. The existing ESP on Boiler No. 3 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 4 in 1993. The existing ESP on Boiler No. 4 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(e) A coal transfer system for Units 1, 2, 3, and 4, with a nominal throughput of 800 tons of coal per hour, construction commenced prior to 1974, with equipment including barge unloading, truck unloading, a coal storage pile, conveying, coal bunkers and scale equipped with dust collector for all units.

(f) One (1) dry fly ash handling and disposal system, including the following:

(1) One (1) pneumatic fly ash transfer system from boiler baghouses to a fly ash storage silo, with a maximum throughput of 17 tons of fly ash per hour, equipped with two (2) separators/mechanical exhausters and one (1) back-up to separate the fly ash, with PM emissions from the storage silo controlled by the separators and a bin vent baghouse.
(2) Two (2) activated carbon silos, each with a maximum storage capacity of 60 tons.
(3) Loading of fly ash into trucks for transport the landfill and unloading of fly ash from trucks at the landfill.
(4) Wind Erosion of fly ash from the landfill.
(5) Fugitive dust from equipment traffic at the landfill.
(6) Fugitive dust from trucks traveling between the storage silo and the landfill.

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) Cleaners and solvents characterized as follows: [326 IAC 8-3]

(1) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100 F) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20 C (68 F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(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) Flyash handling facility and transport systems, wet flyash sluiced and conveyed to multiple ash ponds, with a combined surface area of 102 acres. [326 IAC 6-4]

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability); and

(c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T043-7244-00004, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

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

B.3 Term of Condition [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 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.6 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.7 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.8 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.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Any application form, report, or compliance certification submitted under this permit or 326 IAC 2-7 shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form or its equivalent, with each submittal requiring certification. One (1) certification can cover multiple forms in one (1) submittal.

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

B.10 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
Indianapolis, Indiana 46204-2251

and

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

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent; and

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

(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.11 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
Indianapolis, Indiana 46204-2251

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.12 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 except as otherwise provided in 326 IAC 2-7-16.

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

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

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

(f) Failure to notify IDEM, OAQ , by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to Paragraph (b)(5) of this condition and certified by the Responsible Official need only be referenced by the date of the original report.

B.13 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.14 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

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

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

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

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
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 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
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 a reasonable deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.18 Source Modification [326 IAC 1-2-42] [326 IAC 2-7-10.5]

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

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

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

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

(c) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

(d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.20 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.21 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c). The notification requirement per (a)(4) of this condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

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

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

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

B.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 are physically present or electronically accessible 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 permit amendment or modification to allow for change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

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

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

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(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.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

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

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

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the 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. The test report requires certification by the “responsible official”.

Compliance Requirements [326 IAC 2-1.1-11]

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

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more, and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent 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, 40 CFR 60 and 40 CFR 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, 40 CFR 75 or other approved methods as specified in this permit.

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

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

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

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

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

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

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on February 12, 1980. The plans (ERPs) were approved on March 19, 1980.

(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 at 40 CFR 68.

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

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (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;

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

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

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

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

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

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

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

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

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

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) (“Regulated pollutant which is used only for purposes of Section 19 of this rule”) from the source, for purposes of Part 70 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
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 annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;
(ii) Projected actual emissions;
(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(3); and
(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

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

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

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

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

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

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

(1) Submit to IDEM, OAQ, a copy of the information required by (c)(1) in Section C – General Recordkeeping Requirements.

(2) Submit a report to IDEM, OAQ, within sixty (60) days after the end of each year during which records are generated in accordance with (c)(2) and (3) in Section C –

General Recordkeeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

Stratospheric Ozone Protection

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

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

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

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

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

(d) Pursuant to 40 CFR 82, Subpart E (The Labeling of Products Using Ozone-Depleting Substances), all containers in which a Class I or Class II substance is stored or transported and all products containing a Class I substance shall be labeled as required under 40 CFR Part 82.

Ambient Monitoring Requirements [326 IAC 7-3]

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

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 1 in 1993. The existing ESP on Boiler No. 1 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

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

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the Boiler No. 1 stack shall not exceed 0.38 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 $/m^3$
Q = 5,560 MMBtu/hr (capacity of boilers 1-4)
N = 2 (number of stacks)
a = 0.8
h = 550 Feet (average stack height)

D.1.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), until the new baghouse comes online, the following applies:

(a) When building a new fire in a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one (1) hour (ten (10) six (6)-minute averaging periods) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit entering the electrostatic precipitator, whichever occurs first.

Operation of the electrostatic precipitator is not required during these times.

(b) When shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one half (0.5) hour (five (5) six (6)-minute averaging periods).

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

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-4-9]

Pursuant to 326 IAC 7-4-9 (Floyd County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler No. 1 shall not exceed 4.70 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the baghouse, compliance with the PM limitation in Condition D.1.1 shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.1.6 Operation of Baghouse or Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse or electrostatic precipitator shall be operated at all times that the Boiler No. 1 is in operation and combusting fuel.

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

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring systems shall be calibrated, maintained, and operated for measuring opacity, which meet all applicable performance specifications of 326 IAC 3-5-2.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

(a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the equivalent of 4.70 pounds per MMBtu based on a thirty (30) day rolling weighted average.

(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 3-7-3, 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.

(c) Upon written notification to IDEM by the Permittee, 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.1.9 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Until the ESP is replaced by a baghouse:

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

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

D.1.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 1 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of 1.25 to 10.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.1.11 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken 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 adjustment of flue gas conditioning rate.

(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.

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

D.1.12 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the following shall be used to provide information related to SO_2 emissions:

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

(b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and analysis, then whenever the SO_2 continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

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

(2) If the CEM system is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in part (a) of this condition, above.

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

D.1.13 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.1.1, D.1.2, D.1.7, D.1.9, D.1.10, and D.1.11, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.1.1 and D.1.2.

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

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

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

(4) All ESP parametric monitoring readings, or the pressure drop across the baghouse, after the replacement of the ESP with the baghouse.

(b) To document compliance with Conditions D.1.3, D.1.8 and D.1.12, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.3 and D.1.8. The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEM system downtime if a backup CEMs is not used.

(1) Whenever using CEMS data to demonstrate compliance with Condition D.1.3, the Permittee shall maintain all SO_2 continuous emissions monitoring data,

pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEM downtime.

(2) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.1.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.

(3) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.1.3, the Permittee shall maintain actual fuel usage since last compliance determination period.

(c) 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.

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

D.1.14 Reporting Requirements

(a) A 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).

(b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus 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. [326 IAC 7-2-1(c)(1)]

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

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

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOX burners were installed on Boiler No. 2 in 1993. The existing ESP on Boiler No. 2 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

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

D.2.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the Boiler No. 2 stack shall not exceed 0.38 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 $/m^3$
Q = 5,560 MMBtu/hr(capacity of boilers 1-4)
N = 2 (number of stacks)
a = 0.8
h = 550 Feet (average stack height)

D.2.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), until the new baghouse comes online, the following applies:

(a) When building a new fire in a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one (1) hour (ten (10) six (6)-minute averaging periods) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit entering the electrostatic precipitator, whichever occurs first.

Operation of the electrostatic precipitator is not required during these times.

(b) When shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one half (0.5) hour (five (5) six (6)-minute averaging periods).

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

D.2.3 Sulfur Dioxide (SO_2) [326 IAC 7-4-9]

Pursuant to 326 IAC 7-4-9 (Floyd County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler No. 2 shall not exceed 4.70 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the baghouse, compliance with the PM limitation in Condition D.2.1 shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.2.6 Operation of Baghouse or Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse or electrostatic precipitator shall be operated at all times that the Boiler No. 2 is in operation and combusting fuel.

D.2.7 Continuous Emissions Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring systems shall be calibrated, maintained, and operated for measuring opacity, which meet all applicable performance specifications of 326 IAC 3-5-2.

D.2.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

(a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the equivalent of 4.70 pounds per MMBtu based on a thirty (30) day rolling weighted average.

(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 3-7-3, 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.

(c) Upon written notification to IDEM by the Permittee, 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.2.9 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Until the ESP is replaced by a baghouse:

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

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

D.2.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouses at least once per day when the Boiler 2 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of 1.25 to 10.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.2.11 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken 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 adjustment of flue gas conditioning rate.

(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.

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

D.2.12 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the following shall be used to provide information related to SO_2 emissions:

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

(b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and analysis, then whenever the SO_2 continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

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

(2) If the CEM system is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in part (a) of this condition, above.

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

D.2.13 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.2.1, D.2.2, D.2.7, D.2.9, D.2.10, and D.2.11, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.1 and D.2.2.

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

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

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

(4) All ESP parametric monitoring readings, or the pressure drop across the baghouse, after the replacement of the ESP with the baghouse.

(b) To document compliance with Conditions D.2.3, D.2.8 and D.2.12, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.2.3 and D.2.8. The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEM system downtime if a backup CEM is not used.

(1) Whenever using CEMS data to demonstrate compliance with Condition D.2.3, the Permittee shall maintain all SO_2 continuous emissions monitoring data,

pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEM downtime.

(2) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.2.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.

(3) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.2.3, the Permittee shall maintain actual fuel usage since last compliance determination period.

(c) 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.

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

D.2.14 Reporting Requirements

(a) A 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).

(b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus 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. [326 IAC 7-2-1(c)(1)]

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

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

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 3 in 1993. The existing ESP on Boiler No. 3 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

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

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

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the Boiler No. 3 stack shall not exceed 0.38 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 $/m^3$
Q = 5,560 MMBtu/hr(capacity of boilers 1-4)
N = 2 (number of stacks)
a = 0.8
h = 550 Feet (average stack height)

D.3.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), until the new baghouse comes online, the following applies:

(a) When building a new fire in a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed four (4) hours (forty (40) six (6)-minute averaging periods) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit entering the electrostatic precipitator, whichever occurs first.

Operation of the electrostatic precipitator is not required during these times.

(a) When shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one half (0.5) hour (five (5) six (6)-minute averaging periods).

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

permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

D.3.3 Sulfur Dioxide (SO_2) [326 IAC 7-4-9]

Pursuant to 326 IAC 7-4-9 (Floyd County Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler No. 3 shall not exceed 4.70 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.

Compliance Determination Requirements

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the baghouse, compliance with the PM limitation in Condition D.3.1 shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.3.6 Operation of Baghouse or Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse or electrostatic precipitator shall be operated at all times that the Boiler No. 3 is in operation and combusting fuel.

D.3.7 Continuous Emissions Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring systems shall be calibrated, maintained, and operated for measuring opacity, which meet all applicable performance specifications of 326 IAC 3-5-2.

D.3.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

(a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the equivalent of 4.70 pounds per MMBtu based on a thirty (30) day rolling weighted average.

(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 3-7-3, 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.

(c) Upon written notification to IDEM by the Permittee, 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.3.9 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Until the ESP is replaced by a baghouse:

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

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

D.3.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 3 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of 1.25 to 10.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

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

(a) Appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken 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 adjustment of flue gas conditioning rate.

(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.

(c) The Permittee may request that the IDEM, OAQ approve an opacity trigger level different than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity

trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

D.3.12 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the following shall be used to provide information related to SO_2 emissions:

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

(b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and analysis, then whenever the SO_2 continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

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

(2) If the CEM system is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in part (a) of this condition, above.

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

D.3.13 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.3.1, D.3.2, D.3.7, D.3.9, D.10 and D.3.11 the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.3.1 and D.3.2.

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

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

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

(4) All ESP parametric monitoring readings, or the pressure drop across the baghouse, after the replacement of the ESP with the baghouse.

(b) To document compliance with Conditions D.3.3, 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 SO_2 limits as required in Conditions D.3.3 and D.3.8. The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEM system downtime if a backup CEM is not used.

(1) Whenever using CEMS data to demonstrate compliance with Condition D.3.3, the Permittee shall maintain all SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEM downtime.

(2) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.3.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.

(3) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.3.3, the Permittee shall maintain actual fuel usage since last compliance determination period.

(c) 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.

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

D.3.14 Reporting Requirements

(a) A 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).

(b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus 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. [326 IAC 7-2-1(c)(1)]

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

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

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOX burners were installed on Boiler No. 4 in 1993. The existing ESP on Boiler No. 4 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.

All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

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

D.4.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the Boiler No. 4 stack shall not exceed 0.38 pound per million Btu heat input (lb/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 $/m^3$
Q = 5,560 MMBtu/hr(capacity of boilers 1-4)
N = 2 (number of stacks)
a = 0.8
h = 550 Feet (average stack height)

D.4.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), until the new baghouse comes online, the following applies:

(a) When building a new fire in a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed four (4) hours (forty (40) six (6)-minute averaging periods) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit entering the electrostatic precipitator, whichever occurs first.

Operation of the electrostatic precipitator is not required during these times.

(b) When shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one half (0.5) hour (five (5) six (6)-minute averaging periods).

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

permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

D.4.3 Sulfur Dioxide (SO2) [326 IAC 7-4-9]

Pursuant to 326 IAC 7-4-9 (Floyd County Sulfur Dioxide Emission Limitations), the SO2 emissions from Boiler No. 4 shall not exceed 4.70 pounds per million Btu (lbs/MMBtu) based on a thirty (30) day rolling weighted average.

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.

Compliance Determination Requirements

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the baghouse, compliance with the PM limitation in Condition D.4.1 shall be determined by a performance stack test conducted using Method 5 or other methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.4.6 Operation of Baghouse or Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse or electrostatic precipitator shall be operated at all times that the Boiler No. 4 is in operation and combusting fuel.

D.4.7 Continuous Emissions Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring systems shall be calibrated, maintained, and operated for measuring opacity, which meet all applicable performance specifications of 326 IAC 3-5-2.

D.4.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

(a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the equivalent of 4.70 pounds per MMBtu based on a thirty (30) day rolling weighted average.

(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 3-7-3, 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.

(c) Upon written notification to IDEM by the Permittee, 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.4.9 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Until the ESP is replaced by a baghouse:

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

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

D.4.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 4 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of 1.25 to 10.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.4.11 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken 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 adjustment of flue gas conditioning rate.

(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.

(c) The Permittee may request that the IDEM, OAQ approve an opacity trigger level different than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity

trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

D.4.12 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the following shall be used to provide information related to SO_2 emissions:

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

(b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and analysis, then whenever the SO_2 continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

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

(2) If the CEM system is down for twenty-four (24) hours or more, fuel sampling shall be conducted as specified in part (a) of this condition, above.

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

D.4.13 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.4.1, D.4.2, D.4.7, D.4.9, D.4.10, and D.4.11, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.4.1 and D.4.2.

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

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

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

(4) All ESP parametric monitoring readings, or the pressure drop across the baghouse, after the replacement of the ESP with the baghouse.

(b) To document compliance with Conditions D.4.3, D.4.8 and D.4.12, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.4.3 and D.4.8. The Permittee shall maintain records in accordance with (2) and (3) below during SO_2 CEM system downtime if a backup CEM is not used.

(1) Whenever using CEMS data to demonstrate compliance with Condition D.4.3, the Permittee shall maintain all SO_2 continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEM downtime.

(2) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.4.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.

(3) Whenever the Permittee is not using CEMS data to demonstrate compliance with condition D.4.3, the Permittee shall maintain actual fuel usage since last compliance determination period.

(c) 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.

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

D.4.14 Reporting Requirements

(a) A 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).

(b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus 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. [326 IAC 7-2-1(c)(1)]

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

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

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

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

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

A coal transfer system for Boilers No. 1, No. 2, No. 3, and No. 4, with a nominal throughput of 800 tons of coal per hour, construction commenced prior to 1974, with equipment including barge unloading, truck unloading, a coal storage pile, conveying, coal bunkers and scale equipped with dust collector for all units.

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

D.5.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the coal storage and handling drop points, coal bunkers and scale exhausts, and associated dust collector vents shall not exceed 75 pounds per hour when operating at a process weight of 800 tons per hour. This is determined by the following equation:

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

$$E = 55.0\ P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

When the process weight rate exceeds two hundred (200) tons per hour, the maximum allowable emission may exceed 75 pounds per hour, provided the concentration of particulate matter in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the emission control devices associated with the facilities in this section.

Compliance Determination Requirements

D.5.3 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the watering system for the coal storage pile shall be in operation and control emissions as needed when coal is being unloaded. The Permittee is not required to operate the watering system when due to adverse weather conditions, the watering system may be at risk of freezing.

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

D.5.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the coal storage and handling drop points, coal bunkers and scale exhausts, and associated dust collector vents shall be performed once per week during normal daylight operations. A trained employee shall record whether any emissions are observed.

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

(c) 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.

(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 that specific process.

(e) If abnormal emissions are observed at any baghouse exhaust, 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.

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

D.5.5 Record Keeping Requirements

(a) To document compliance with Section C - Opacity, Section C -Fugitive Dust Emissions, and Condition D.5.4, the Permittee shall maintain records of the visible emission notations of the coal storage and handling drop points, coal bunkers and scale exhausts, and associated dust collector vents and all response steps taken and the outcome for each.

(b) To document compliance with Condition D.5.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

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

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Dry fly ash handling and disposal system, including the following:

(1) One (1) pneumatic fly ash transfer system from boiler baghouses to a fly ash storage silo, with a maximum throughput of 17 tons of fly ash per hour, equipped with two (2) separators/mechanical exhausters and one (1) back-up to separate the fly ash, with PM emissions from the storage silo controlled by the separators and a bin vent baghouse.
(2) Two (2) activated carbon silos, each with a maximum storage capacity of 60 tons.
(3) Loading of fly ash into trucks for transport the landfill and unloading of fly ash from trucks at the landfill.
(4) Wind Erosion of fly ash from the landfill.
(5) Fugitive dust from equipment traffic at the landfill.
(6) Fugitive dust from trucks traveling between the storage silo and the landfill.

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

D.6.1 PSD Minor Limits [326 IAC 2-2] and Nonattainment NSR [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the Permittee shall comply with the following for the fly ash handling and disposal operation:

(a) PM/PM-10 emissions from each separator shall not exceed 0.91 pounds per hour.

(b) The Permittee shall operate only two (2) separators at one time.

(c) PM/PM-10 emissions from the silo bin vent filter shall not exceed 0.41 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from truck loading and unloading, vehicular traffic, the activated carbon silos, wind erosion of fly ash from the landfill, and dust from equipment traffic at the landfill will ensure that the PM emissions from the fly ash disposal and handling system are less than 25 tons/yr and PM10 emissions are less than 15 tons/yr, and the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) shall be rendered not applicable.

D.6.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the pneumatic fly ash transfer system shall not exceed 27.5 pounds per hour when operating at a process weight rate of 17.0 tons per hour.

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

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

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

Compliance Determination Requirements

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the pneumatic fly ash transfer system, compliance with the PM and PM-10 limitations in Condition D.6.1 shall be determined by a performance stack test on one (1) of the three (3) separators on the ash silo conducted using methods as approved by the Commissioner. This testing shall be conducted as least once every 5 years from the date of the last valid compliance demonstration. The separator tested shall be the unit in which the longest amount of time has elapsed since its previous test. Testing shall be conducted in accordance with Section C- Performance Testing. PM-10 includes filterable and condensible PM-10.

D.6.4 PM and PM10 Control

In order to comply with Conditions D.6.1 and D.6.2, the separators and bin vent baghouse for particulate control shall be in operation and control emissions from the pneumatic fly ash transfer system at all times that the associated process is in operation.

D.6.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any emission control devices.

Compliance Monitoring Requirements

D.6.6 Visible Emissions Notations

(a) Visible emission notations of the truck loading and unloading stations shall be performed at least once per day during normal daylight operations when ash is being loaded and unloaded. A trained employee shall record whether any emissions are normal or abnormal.

(b) Visible emission notations of the pneumatic fly ash conveyance shall be performed at least once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(c) Visible emission notations of the separators exhaust and the ash silo bin vent baghouse exhaust shall be performed at least once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(d) Visible emission notations of the dry spout shall be performed at least once per day during normal daylight operations when unloading ash through the dry spout. A trained employee shall record whether emissions are normal or abnormal.

(e) Visible emissions of the landfill area shall be performed at least once per day during normal daylight hours. A trained employee shall record whether emissions are normal or abnormal.

(f) If visible emissions are observed crossing the property line or boundaries of the property, right-of-way, or easement on which the source is located, 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.

(g) 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.

(h) 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.

(i) 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.

(j) If abnormal emissions are observed at any baghouse exhaust or the truck loading and unloading points, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Observations 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. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.6.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the bin vent baghouse and the separators at least once per day when the pneumatic fly ash system is in operation. When for any reading, the pressure drop across the bin vent baghouse is outside the normal range of 2.5 to 4.5 inches of water or the normal range of 3 to 6 inches of water for the separators or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

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

D.6.8 Record Keeping Requirements

(a) To document compliance with D.6.6, the Permittee shall maintain records of all visible emissions notations.

(b) To document compliance with D.6.7, the Permittee shall maintain records of the pressure drop across the separators and the silo bin vent baghouse.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Insignificant Activities [326 IAC 2-7-1(21)]:

(1) Flyash handling facility and transport systems, wet flyash sluiced and conveyed to multiple ash ponds, with a combined surface area of 102 acres. [326 IAC 6-4] [326 IAC 6-3]

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

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

D.7.1 Organic Solvent Degreasing Operations: Cold Cleaner Operation [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.7.2 Organic Solvent Degreasing Operations: Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for a cold cleaner degreaser facility, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32)

millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control) for a cold cleaning facility, the Permittee shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.7.3 Fugitive Dust Emission Limitations [326 IAC 6-4-2]

Pursuant to 326 IAC 6-4-2:

(a) Any ash storage pond area generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

(1) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100\ (R) - U)}{U}$$

Where
P = Percentage increase
R = Number of particles of fugitive dust measured at downward receptor site
U = Number of particles of fugitive dust measured at upwind or background site

(2) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$P_R = (1.5 \pm N)\ P$$

Where
N = Fraction of fugitive dust that is respirable dust;
P_R = allowable percentage increase in dust concentration above background; and
P = no value greater than sixty-seven percent (67%).

(3) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.

(4) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.

(b) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.

D.7.4 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the flyash handling facility and flyash transport systems shall not exceed an amount determined by the following:

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

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

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

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

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

D.7.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of

this permit, is required for the emission control devices associated with the facilities in this section.

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

D.7.6 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the ash storage pond area(s) shall be performed at least once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) If visible emissions are observed crossing the property line or boundaries of the property, right-of-way, or easement on which the source is located, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Adverse weather conditions shall not relieve the Permittee of responsibility to take reasonable response steps to mitigate fugitive dust formation and transport. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) If abnormal emissions are observed from the ash storage pond area(s), 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), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

(e) 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.

(f) 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.

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

D.7.7 Record Keeping Requirements

(a) To document compliance with Section C - Opacity, Section C -Fugitive Dust Emissions, and Conditions D.7.3 and D.7.6, the Permittee shall maintain records of the visible emission notations of the fly ash storage pond area(s).

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

SECTION E TITLE IV ACID RAIN PROGRAM CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 1 in 1993. The existing ESP on Boiler No. 1 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 2 in 1993. The existing ESP on Boiler No. 2 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 3 in 1993. The existing ESP on Boiler No. 3 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 4 in 1993. The existing ESP on Boiler No. 4 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

Acid Rain Program

E.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix A, and is incorporated by reference.

E.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

(a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.

(b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

(c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

SECTION F Nitrogen Oxides Budget Trading Program - NO_X Budget Permit for NO_X Budget Units Under 326 IAC 10-4-1(a)

ORIS Code: 1008

NO_X Budget Source [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

(a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 1 in 1993. The existing ESP on Boiler No. 1 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 2 in 1993. The existing ESP on Boiler No. 2 is being replaced with a new baghouse. The new baghouse, anticipated to be online in November 2007, will exhaust to stack A.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

(c) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 3, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 3 in 1993. The existing ESP on Boiler No. 3 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B.
All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

NOX Budget Source [326 IAC 2-7-5(15)] Continued

(d) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NOX) and sulfur dioxide (SO2) and a continuous opacity monitor (COM). Low-NOx burners were installed on Boiler No. 4 in 1993. The existing ESP on Boiler No. 4 is being replaced with a new baghouse. The new baghouse, anticipated to be online in May 2008, will exhaust to stack B. All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal. Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

F.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]

This NO_X budget permit is deemed to incorporate automatically the definitions of terms under 326 IAC 10-4-2.

F.2 Standard Permit Requirements [326 IAC 10-4-4(a)]

(a) The owners and operators of the NO_X budget source and each NO_X budget unit shall operate each unit in compliance with this NO_X budget permit.

(b) The NO_X budget units subject to this NO_X budget permit include the following: Boiler No. 1, Boiler No. 2, Boiler No. 3, and Boiler No. 4.

F.3 Monitoring Requirements [326 IAC 10-4-4(b)]

(a) The owners and operators and, to the extent applicable, the NO_X authorized account representative of the NO_X budget source and each NO_X budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12.

(b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NO_X budget emissions limitation under 326 IAC 10-4-4(c) and Condition F.4, Nitrogen Oxides Requirements.

F.4 Nitrogen Oxides Requirements [326 IAC 10-4-4(c)]

(a) The owners and operators of the NO_X budget source and each NO_X budget unit at the source shall hold NO_X allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO_X allowance transfer deadline, in each unit's compliance account and the source's overdraft account in an amount:

(1) Not less than the total NO_X emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;

(2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or

(3) To account for withdrawal from the NO_X budget trading program, or a change in regulatory status of a NO_X budget opt-in unit.

(b) Each ton of NO_X emitted in excess of the NO_X budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.

(c) Each NO_X budget unit shall be subject to the requirements under (a) above and 326 IAC 10-4-4(c)(1) starting on May 31, 2004.

(d) NO_X allowances shall be held in, deducted from, or transferred among NO_X allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.

(e) A NO_X allowance shall not be deducted, in order to comply with the requirements under (a) above and 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NO_X allowance was allocated.

(f) A NO_X allowance allocated under the NO_X budget trading program is a limited authorization to emit one (1) ton of NO_X in accordance with the NO_X budget trading program. No provision of the NO_X budget trading program, the NO_X budget permit application, the NO_X budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.

(g) A NO_X allowance allocated under the NO_X budget trading program does not constitute a property right.

(h) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO_X allowance to or from each NO_X budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, this NO_X budget permit of the NO_X budget unit by operation of law without any further review.

F.5 Excess Emissions Requirements [326 IAC 10-4-4(d)]

The owners and operators of each NO_X budget unit that has excess emissions in any ozone control period shall do the following:

(a) Surrender the NO_X allowances required for deduction under 326 IAC 10-4-10(k)(5).

(b) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).

F.6 Record Keeping Requirements [326 IAC 10-4-4(e)] [326 IAC 2-7-5(3)]

Unless otherwise provided, the owners and operators of the NO_X budget source and each NO_X budget unit at the source shall keep, either on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years:

(a) The account certificate of representation for the NO_X authorized account representative for the source and each NO_X budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NO_X authorized account representative.

(b) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide for a three (3) year period for record keeping, the three (3) year period shall apply.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_X budget trading program.

(d) Copies of all documents used to complete a NO_X budget permit application and any other submission under the NO_X budget trading program or to demonstrate compliance with the requirements of the NO_X budget trading program.

This period may be extended for cause, at any time prior to the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to IDEM, OAQ or U.S. EPA within three (3) business days following receipt of a written request. Nothing in 326 IAC 10-4-4(e) shall alter the record retention requirements for a source under 40 CFR 75. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

F.7 Reporting Requirements [326 IAC 10-4-4(e)]

(a) The NO_X authorized account representative of the NO_X budget source and each NO_X budget unit at the source shall submit the reports and compliance certifications required under the NO_X budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.

(b) Pursuant to 326 IAC 10-4-6(e), each submission shall include the following certification statement by the NO_X authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NO_X budget sources or NO_X budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(c) Where 326 IAC 10-4 requires a submission to IDEM, OAQ, the NO_X authorized account representative shall submit required information to:

Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

(d) Where 326 IAC 10-4 requires a submission to U.S. EPA, the NO_X authorized account representative shall submit required information to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code 6204N
Washington, DC 20460

F.8 Liability [326 IAC 10-4-4(f)]

The owners and operators of each NO_X budget source shall be liable as follows:

(a) Any person who knowingly violates any requirement or prohibition of the NO_X budget trading program, a NO_X budget permit, or an exemption under 326 IAC 10-4-3 shall be subject to enforcement pursuant to applicable state or federal law.

(b) Any person who knowingly makes a false material statement in any record, submission, or report under the NO_X budget trading program shall be subject to criminal enforcement pursuant to the applicable state or federal law.

(c) No permit revision shall excuse any violation of the requirements of the NO_X budget trading program that occurs prior to the date that the revision takes effect.

(d) Each NO_X budget source and each NO_X budget unit shall meet the requirements of the NO_X budget trading program.

(e) Any provision of the NO_X budget trading program that applies to a NO_X budget source, including a provision applicable to the NO_X authorized account representative of a NO_X budget source, shall also apply to the owners and operators of the source and of the NO_X budget units at the source.

(f) Any provision of the NO_X budget trading program that applies to a NO_X budget unit, including a provision applicable to the NO_X authorized account representative of a NO_X budget unit, shall also apply to the owners and operators of the unit. Except with regard to the requirements applicable to units with a common stack under 40 CFR 75 and 326 IAC 10-4-12, the owners and operators and the NO_X authorized account representative of one (1) NO_X budget unit shall not be liable for any violation by any other NO_X budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

F.9 Effect on Other Authorities [326 IAC 10-4-4(g)]

No provision of the NO_X budget trading program, a NO_X budget permit application, a NO_X budget permit, or an exemption under 326 IAC 10-4-3 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_X authorized account representative of a NO_X budget source or NO_X budget unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the CAA.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Duke Energy Indiana, Inc. - Gallagher Generating Station
Source Address: Jackson Street, New Albany, Indiana 47150
Mailing Address: c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Part 70 Permit No.: T043-7244-00004

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Telephone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Duke Energy Indiana, Inc. - Gallagher Generating Station
Source Address: Jackson Street, New Albany, Indiana 47150
Mailing Address: c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Part 70 Permit No.: T043-7244-00004

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**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date: _____

Phone: _____

A certification is not required for this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Duke Energy Indiana, Inc. - Gallagher Generating Station
Source Address: Jackson Street, New Albany, Indiana 47150
Mailing Address: c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Part 70 Permit No.: T043-7244-00004

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted on a quarterly basis. 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 for a Significant Source Modification and a Significant Permit Modification to a Part 70 Operating Permit

Source Description and Location

Source Name:	Duke Energy Indiana, Inc. - Gallagher Generating Station
Source Location:	Jackson Street, New Albany, Indiana 47150
County:	Floyd
SIC Code:	4911
Operating Permit No.:	T043-7244-00004
Operation Permit Issuance Date:	July 1, 2004
Permit Modification No.:	043-22712-00004
Source Modification No.:	043-22710-00004
Permit Reviewer:	Kristen Layton

On January 14, 2007, the Office of Air Quality (OAQ) had a notice published in the New Albany Tribune in New Albany, Indiana, stating that Duke Energy Indiana, Inc. - Gallagher Generating Station had applied for a Part 70 Significant Permit Modification and Significant Source Modification to Part 70 Operating Permit No. T043-7244-00004. The notice also stated that OAQ proposed to issue a permit modification 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.

Upon further review, IDEM, OAQ has decided to make the following revisions to the permit (**bolded** language has been added, the language with a line through it has been deleted). The Table of Contents has been modified to reflect these changes.

1. Upon further review, IDEM, OAQ has determined that it is not necessary to list the Responsible Official name or title in Section A.1. The following changes have been made to Section A.1:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(21)]

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

~~Responsible Official:~~	~~Manager of the Gallagher Generating Station~~
Source Address:	Jackson Street, New Albany, Indiana 47150
Mailing Address:	c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Source Telephone:	(317) 838-2108
SIC Code:	4911
County Location:	Floyd
Source Location Status:	Nonattainment for Ozone under the 8 hour standard Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, under Emission Offset and Nonattainment NSR Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

2. Duke Energy Indiana, Inc. - Gallagher Generating Station's name has been corrected on the title page as follows:

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Duke Energy **Indiana**, Inc. - Gallagher Generating Station
Jackson Street
New Albany, Indiana 47150

On February 2, 2007, Duke Energy Indiana, Inc. - Gallagher Generating Station submitted comments on the proposed Part 70 permit. The summary of the comments is as follows:

Comment 1:

Condition D.6.1(a) limits the PM/PM-10 emissions to 1.83 lbs/hr for all three separators combined. Duke Energy would like to have this limit changed such that the limits apply to each separator individually. Also the system is designed such that only two exhausters will be operated at one time. The third separator is used as a backup. Duke Energy requests that condition D.6.1 be modified to read as follows:

D.6.1 PSD Minor Limits [326 IAC 2-2] and Nonattainment NSR [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the Permittee shall comply with the following for the fly ash handling and disposal operation:

(a) PM/PM10 emissions from each separator shall be limited to 0.91 lbs/hr.

(b) The Permittee shall operate only two separators at one time.

(c) PM/PM10 emissions from the silo bin vent filter shall not exceed 0.41 lbs/hr.

Compliance with these limits in conjunction with the potential fugitive emissions from truck loading and unloading, vehicular traffic, the activated carbon silos, wind erosion of fly ash from the landfill, and dust from equipment traffic at the landfill will ensure that the PM emissions from the fly ash disposal and handling system are less than 25 tons/yr and PM10 emissions are less than 15 tons/yr, and the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) shall be rendered not applicable.

Response 1:

IDEM, OAQ has agreed to change Condition D.6.1 as follows:

D.6.1 PSD Minor Limits [326 IAC 2-2] and Nonattainment NSR [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the Permittee shall comply with the following for the fly ash handling and disposal operation:

(a) PM/PM-10 emissions from ~~the~~ **each** separator~~s~~ shall not exceed ~~1.83~~ **0.91** pounds per hour.

(b) The Permittee shall operate only two (2) separators at one time.

~~(b)~~**(c)** PM/PM-10 emissions from the silo bin vent filter shall not exceed 0.41 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from truck loading and unloading, vehicular traffic, the activated carbon silos, wind erosion of fly ash from the landfill, and dust from equipment traffic at the landfill will ensure that the PM emissions from the fly ash disposal and handling system are less than 25 tons/yr and PM10 emissions are less than 15 tons/yr, and the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) shall be rendered not applicable.

Comment 2:

Condition D.6.3 requires testing of the pneumatic fly ash transfer system to determine compliance with the PM/PM-10 emissions limitations in Condition D.6.1. This condition requires testing for filterable and condensible PM/PM10 within 180 days of startup and once every five years thereafter. Duke Energy has the following concerns associated with the testing requirements in condition D.6.3:

(a) Testing of the bin vent filter is not feasible since the exhaust flow rate is very low and erratic. The bin vent filter is a passive control device. The bin vent filter only vents air displaced in the silo during periods when ash is loaded into the silo and unloading using the dry spout. In addition to this the PM/PM-10 emissions from this unit are anticipated to be insignificant and well below the permitted emissions limit. Duke Energy requests that IDEM eliminate the requirement for testing the bin vent filter.

(b) As written this condition would require that Duke Energy test each of the three filter separators within 180 days of startup and once every five years thereafter. Duke Energy requests that the source only be required to test one of the filter separators since the three separators are identical units.

(c) Duke Energy requests that the requirement to test for condensible particulate matter from the separators and bin vent filter be eliminated from the permit. The condensible particulate matter consists of organic and inorganic vapor which condense into aerosol at ambient temperature and pressures. Duke Energy believes that the fraction condensible PM emitted from the exhausters and bin vent filter will be negligible due to the infinitesimal amount of flue gas entering the system and the lower temperatures and pressures which exist in the pneumatic conveying gas stream.

During operation, the ash conveying system will unload from one baghouse hopper at a time. The mechanical exhausters are started, creating a vacuum within the filter separators. This vacuum force then pulls ash from the baghouse hopper up to the filter separators. As the hopper becomes empty, the instrumentation on the exhausters sense a reduction in load on the exhauster and it closes the hopper shutoff valve and then opens the next. This is typically a very short time as the system recognized there is no load on the mechanical exhausters and moves on to the next baghouse compartment.

The temperature and pressure that will exist in the pneumatic conveying system will cause the organic and inorganic vapors that may be present to condense into aerosols prior to being exhausted.

(d) Duke Energy believes that due to the limitations of the sampling method 202, it would be very difficult to obtain good data when testing at extremely low concentration of

condensable particulate matter which would be present in the pneumatic conveyor gas stream.

(e) The testing frequency of once every five years is excessive, if we are required to test each of the three separators and bin vent filter. Duke Energy would not object to testing one of the filter separators once every five years for filterable particulate.

Response to Comment 2(a):

Due to the extremely intermittent schedule in which the ash storage silo is loaded and the vacuum conditions which exist during unloading to the paddle mixer IDEM, OAQ Compliance Branch agrees with Duke Energy that it would be difficult to conduct reliable and useful performance testing on the bin vent baghouse. Therefore, Condition D.6.3 - Testing Requirements has been changed as shown below in order to specify that testing is only required for one (1) of the three (3) separators, and not for the bin vent filter.

Response to Comment 2(b) and 2(e):

IDEM, OAQ Compliance Branch agreed to reduce the number of separators that need to be tested, since these units are identical. Condition D.6.3 has been changed to allow the Gallagher plant to test one (1) of the three (3) separators on the ash silo within 180 days of start-up and once every five (5) years thereafter.

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the pneumatic fly ash transfer system, compliance with the PM and PM-10 limitations in Condition D.6.1 shall be determined by a performance stack test **on one (1) of the three (3) separators on the ash silo** conducted using methods as approved by the Commissioner. This testing shall be **conducted at least once** every five (5) years **from the date of the last** ~~following this~~ valid compliance demonstration. **The separator tested shall be the unit in which the longest amount of time has elapsed since its previous test.** Testing shall be conducted in accordance with Section C- Performance Testing. PM-10 includes filterable and condensible PM-10.

Response to Comment 2(c):

The new condition D.6.1 - PSD Minor Limits and Nonattainment NSR has been inserted limiting emissions for the dry ash handling and disposal system to below the significance thresholds for prevention of significant deterioration and nonattainment NSR. Part (a) of the condition sets a PM/PM10 emission rate of 0.91 pounds per hour. Condition D.6.3 -Testing Requirements has been added to the permit to require stack testing of the separators to demonstrate compliance with Condition D.6.1 - PSD Minor Limits and Nonattainment NSR. Additionally, Floyd County has been designated as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. IDEM, OAQ requires the testing for condensible particulate matter as part of the PM10 testing requirements. Therefore, no change has been made as a result of this comment.

Response to Comment 2(d):

> Sampling method 202 is necessary to document that there is actually a low concentration of condensible particulate matter. Therefore, no change has been made as a result of this comment.

No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on 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. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	**Duke Energy Indiana, Inc. (formerly known as PSI Energy, Inc.) – Gallagher Generating Station**
Source Location:	**Jackson Street, New Albany, IN 47150**
County:	**Floyd**
SIC Code:	**4911**
Operation Permit No.:	**T 043-7244-00004**
Operation Permit Issuance Date:	**July 1, 2004**
Significant Source Modification No.:	**043-22710-00004**
Significant Permit Modification No.:	**043-22712-00004**
Permit Reviewer:	**Kristen Layton**

Existing Approvals

The source was issued Part 70 Operating Permit No. T043-7244-00004 on July 1, 2004. The source has since received the following approval:

(a) Significant Permit Modification No. (043-22575-0004), issued on November 3, 2006.

County Attainment Status

The source is located in Floyd County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

(a) 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 the ozone standards. Floyd County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Floyd County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.

(c) Floyd County has been classified as attainment or unclassifiable 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 a fossil fuel fired steam electric plant of more than two hundred fifty million (250,000,000) British thermal units per hour heat input under 326 IAC 2-7-1(22)(xxvi), 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 (tons/year)
PM	Greater than 100
PM10	Greater than 100
PM2.5	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
CO	Greater than 100
NO_x	Greater than 100

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Floyd County as nonattainment for PM2.5. This existing source is a major stationary source under Emission Offset (326 IAC 2-3) because PM2.5, a nonattainment regulated pollutant, is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon the Technical Support Document for Part 70 permit No.T 043-7244-00004. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Lead Compounds	Greater than 10
Combination HAPs	Greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Duke Energy Indiana, Inc. (formerly known as PSI Energy, Inc.) – Gallagher Generating Station, on February 23, 2006, relating to the construction and operation of the following emission units:

One (1) dry fly ash handling and disposal system, including the following:

(1) One (1) pneumatic fly ash transfer system from boiler baghouses to a fly ash storage silo, with a throughput of 17 tons of fly ash per hour, equipped with two (2) separators/mechanical exhausters and one (1) back-up to separate the fly ash, with PM emissions from the storage silo controlled by the separators and a bin vent baghouse.
(2) Two (2) activated carbon silos, each with a maximum storage capacity of 60 tons.
(3) Loading of fly ash into trucks for transport the landfill and unloading of fly ash from trucks at the landfill.
(4) Wind Erosion of fly ash from the landfill.
(5) Fugitive dust from equipment traffic at the landfill.
(6) Fugitive dust from trucks traveling between the storage silo and the landfill.

“Integral Part of the Process” Determination

The Permittee has submitted the following information to justify why the fly ash separator system and the silo baghouses B-10 and B-11 should be considered an integral part of the fly ash transfer and truck loading processes:

1. The process cannot operate without the control equipment.

   The process is the disposal of dry fly ash into the landfill. The fly ash silo control device (separator) is part of the ash disposal process. The process of collecting the fly ash in the silo cannot occur without the separator, since the separator is necessary to separate the material (fly ash), from the transport medium (air).

2. The control equipment serves a primary purpose other than pollution control.

   The primary purpose of the separator is to separate the material (fly ash) from the transport media (air).

3. The control equipment has an overwhelming positive economic effect.

   The separator has an overwhelming positive economic effect since it makes disposal of dry fly ash possible. The decision to dry handle the fly ash was made due to the economic benefits of reducing pollution from water discharge verses economic costs associated with treating the water prior to discharge.

IDEM, OAQ has evaluated the information submitted and has determined that the fly ash separator system should not be considered an integral part of the fly ash transfer and truck loading processes. This determination is based on the reasons outlined below. Therefore, the permitting level will be determined using the potential to emit before the separator.

IDEM, OAQ has evaluated the justification and determined that the separators and baghouses B-10 and B-11 are NOT integral to the processing of a product. This determination was based on the following:

(a) Pneumatic conveyance systems do require containment of the conveyed material for proper operation. However, this alone does not guarantee that the system is properly operated and maintained to prevent leaks.

(b) The powdery consistency of fly ash could allow much of any material released from an elevated baghouse to remain airborne long enough to be carried offsite. Material that reached the ground onsite could be dispersed over a wide area and would be impractical to clean up, and re-entrainment would be likely to occur.

(c) Despite the lower cost of dry disposal in comparison to that of wet disposal, the collection of fly ash by the separator does not provide financial motivation to ensure that no fly ash, which is to be disposed of in the landfills as waste material, escapes from any of the conveyance systems or transfer points. Avoiding possible cleanup of a wind-dispersed waste material with no monetary value is also not believed to be sufficient motivation to ensure proper operation and maintenance of the baghouse.

Therefore, the PTE before control was used to determine the level of permit required.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Vent ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Exhauster 1	Fly ash silo	-	-	4,000	Ambient
Exhauster 2	Fly ash silo	-	-	3,800	Ambient
Back-up Exhauster	Fly ash silo	-	-	4,000	Ambient
Bin Vent Baghouse	Fly ash silo	-	-	3,100	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Modification Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	247.97
PM10	87.04
SO_2	Negligible
VOC	Negligible
CO	Negligible
NO_x	Negligible

HAPs	Potential To Emit (tons/year)
Single HAP	Negligible
Combination HAPs	Negligible

This source modification is subject to 326 IAC 2-7-10.5(f)(4), which states that a significant source modification is required for any modification with a potential to emit greater than or equal to twenty-five (25) tons per year of particulate matter (PM) or particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM10). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because the permit modification will involve significant changes in existing monitoring Part 70 permit terms and conditions.

Permit Level Determination – PSD and 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 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)					
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NO_X**
Pneumatic conveying (Separators)	8.00	8.00	-	-	-	-
Silo Bin Vent Filter	1.80	1.80				
Truck loading	0.01	0.01	-	-	-	-
Truck Unloading	0.01	0.01				
Truck to landfill	5.49	1.68	-	-	-	-
Wind erosion at landfill	0.48	0.24	-	-	-	-
Trucks from landfill	3.97	1.21	-	-	-	-
Landfill traffic	3.20	0.98	-	-	-	-
Activated Carbon	1.00	1.00				
Total for Modification	23.97	14.84	-	-	-	-
Significant Level	25	15	Not Applicable	Not Applicable	Not Applicable	Not Applicable

This modification to an existing major stationary source for PM and PM-10 is not major because the limited PM and PM-10 emissions increase are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Floyd County has been designated as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A significant emissions

increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM10. Duke Energy Indiana, Inc. – Gallagher Generating Station, has limited PM10 from the modification less than fifteen (15) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-3 does not apply for PM2.5.

Federal Rule Applicability Determination

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

(a) Fly ash does not meet the definition of "nonmetallic mineral" in 40 CFR 60.671. Therefore, the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (40 CFR 60.670-676, Subpart OOO) are not applicable to the proposed fly ash handling and disposal operation.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to modifications 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 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	PM Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Fly ash pneumatic conveying separator/ exhauster	Separator/ Bin Vent Baghouse	Y	247.97	5.85	100	Y	N

Emission Unit	Control Device Used	PM-10 Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Fly ash pneumatic conveying separator/ Exhauster	Separator/ Bin Vent Baghouse	Y	87.04	5.85	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the separators and bin vent baghouse for PM emissions upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

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

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and Nonattainment NSR (326 IAC 2-1.1-5)

This source is in 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and is an existing PSD (326 IAC 2-2) major source for PM and PM10 and an existing major source for PM2.5 under Nonattainment NSR (326 IAC 2-1.1-5). The uncontrolled potential to emit of this modification is greater than 25 tons/yr for PM and greater than 15 tons/yr for PM10 (which is also the surrogate for PM2.5). In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the Permittee shall comply with the following emission limits for the fly ash handling operation:

(a) PM/PM-10 emissions from the separators shall not exceed 1.83 pounds per hour.

(b) PM/PM-10 emissions from the silo bin vent filter shall not exceed 0.41 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from truck loading and unloading, the activated carbon silos, vehicular traffic, wind erosion of fly ash from the landfill, and dust from equipment traffic at the landfill will ensure that the PM emissions from the fly ash disposal and handling system are less than 25 tons/yr and PM10 emissions are less than 15 tons/yr, and the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) shall be rendered not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the fly ash disposal and handling system will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)

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%) 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.

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

The potential PM emissions from the activated carbon silos, and truck loading and unloading operations are less than 0.551 pounds per hour. Therefore, these processes are not subject to 326 IAC 6-3.

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the pneumatic conveying of fly ash to the storage bin shall not exceed 27.5 pounds per hour when operating at a process weight rate of 17.0 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

The total controlled potential to emit of PM based on vendor guaranteed PM loading of 0.02 gr/dscf from the two (2) exhausters is 5.85 tons per year or 1.34 pounds per hour, which is less than the limit above.

The two (2) exhausters and the bin vent baghouse shall be in operation at all times the fly ash is pneumatically conveyed to the storage silo, in order to comply with this limit.

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, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

The fly ash pond and fly ash landfill are also subject to the requirements under 326 IAC 6-4-2.

326 IAC 2-7-5(13)(Preventive Maintenance Plan)

Pursuant to 326 IAC 2-5-5(13), a Preventive Maintenance Plan, is required for the emission units and the emission control devices.

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 Compliance Determination Requirements applicable to this modification are as follows:

a) Within 180 days after the initial startup of the pneumatic fly ash transfer system, compliance with the PM and PM-10 limitations in Condition D.6.1 shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be every 5 years following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing. PM-10 includes filterable and condensible PM-10.

b) In order to comply with Conditions D.6.1 and D.6.2, the separators and bin vent baghouse for particulate control shall be in operation and control emissions from the pneumatic fly ash transfer system from the boiler baghouses to the fly ash storage silo at all times that the associated process is in operation.

The compliance monitoring requirements applicable to this modification are as follows:

a) The pneumatic fly ash transfer from the boiler baghouses to the fly ash storage silo shall be subject to visible emissions notations as included in Condition D.6.7.

b) The bin vent bag house and separators shall be subject to baghouse parametric monitoring when the pneumatic fly ash system is in operation as included in Condition D.6.8.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T043-7244-00004. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(1) Section A.1 has been modified as follows in order to clarify the source status:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(21)]

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

Responsible Official:	Manager of the Gallagher Generating Station
Source Address:	Jackson Street, New Albany, Indiana 47150
Mailing Address:	c/o Patrick Coughlin, 1000 East Main Street, Plainfield, Indiana 46168
Source Telephone:	(317) 838-2108
SIC Code:	4911
County Location:	Floyd
Source Location Status:	Nonattainment for Ozone under the 8 hour standard Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, under Emission Offset **and Nonattainment NSR** Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

(2) Section A.2 has been modified as follows to add the new fly ash handling and disposal system.

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:

(f) One (1) dry fly ash handling and disposal system, including the following:

(1) One (1) pneumatic fly ash transfer system from boiler baghouses to a fly ash storage silo, with a maximum throughput of 17 tons of fly ash per hour, equipped with two (2) separators/mechanical exhausters and one (1) back-up to separate the fly ash, with PM emissions from the storage silo controlled by the separators and a bin vent baghouse.
(2) Two (2) activated carbon silos, each with a maximum storage capacity of 60 tons.
(3) Loading of fly ash into trucks for transport the landfill and unloading of fly ash from trucks at the landfill.
(4) Wind Erosion of fly ash from the landfill.
(5) Fugitive dust from equipment traffic at the landfill.
(6) Fugitive dust from trucks traveling between the storage silo and the landfill.

(3) Conditions D.1.10, D.2.10, D.3.10, and D.4.10 have been modified to reflect changes proposed by the Permittee after further evaluation of the expected baghouse performance. IDEM has evaluated these changes and approved the new ranges.

D.1.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 1 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of ~~7.0 to 10.0~~ **1.25 to 10.5** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.2.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouses at least once per day when the Boiler 2 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of ~~7.0 to 10.0~~ **1.25 to 10.5** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.3.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 3 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of ~~7.0 to 10.0~~ **1.25 to 10.5** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.4.10 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

After the replacement of the ESP by a baghouse:

(a) The Permittee shall record the pressure drop across the baghouse at least once per day when the Boiler 4 is in operation. When for any reading, the pressure drop across the baghouse is outside the normal range of ~~7.0 to 10.0~~ **1.25 to 10.5** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C –

Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

(4) Section D.6 has been added for emissions units involved in the fly ash handling and disposal system. The insignificant activities, previously included in Section D.6, have been moved to Section D.7.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Dry fly ash handling and disposal system, including the following:

(1) One (1) pneumatic fly ash transfer system from boiler baghouses to a fly ash storage silo, with a maximum throughput of 17 tons of fly ash per hour, equipped with two (2) separators/mechanical exhausters and one (1) back-up to separate the fly ash, with PM emissions from the storage silo controlled by the separators and a bin vent baghouse.
(2) Two (2) activated carbon silos, each with a maximum storage capacity of 60 tons.
(3) Loading of fly ash into trucks for transport the landfill and unloading of fly ash from trucks at the landfill.
(4) Wind Erosion of fly ash from the landfill.
(5) Fugitive dust from equipment traffic at the landfill.
(6) Fugitive dust from trucks traveling between the storage silo and the landfill.

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

D.6.1 PSD Minor Limits [326 IAC 2-2] and Nonattainment NSR [326 IAC 2-1.1-5]

In order to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the Permittee shall comply with the following for the fly ash handling and disposal operation:

(a) PM/PM-10 emissions from the separators shall not exceed 1.83 pounds per hour.

(b) PM/PM-10 emissions from the silo bin vent filter shall not exceed 0.41 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from truck loading and unloading, vehicular traffic, the activated carbon silos, wind erosion of fly ash from the landfill, and dust from equipment traffic at the landfill will ensure that the PM emissions from the fly ash disposal and handling system are less than 25 tons/yr and PM10 emissions are less than 15 tons/yr, and the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) shall be rendered not applicable.

D.6.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the pneumatic fly ash transfer system shall not exceed 27.5 pounds per hour when operating at a process weight rate of 17.0 tons per hour.

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

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

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

Compliance Determination Requirements

D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after the initial startup of the pneumatic fly ash transfer system, compliance with the PM and PM-10 limitations in Condition D.6.1 shall be determined by a performance stack test conducted using methods as approved by the Commissioner. This testing shall be every 5 years following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing. PM-10 includes filterable and condensible PM-10.

D.6.4 PM and PM10 Control

In order to comply with Conditions D.6.1 and D.6.2, the separators and bin vent baghouse for particulate control shall be in operation and control emissions from the pneumatic fly ash transfer system at all times that the associated process is in operation.

D.6.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any emission control devices.

Compliance Monitoring Requirements

D.6.6 Visible Emissions Notations

(a) **Visible emission notations of the truck loading and unloading stations shall be performed at least once per day during normal daylight operations when ash is being loaded and unloaded. A trained employee shall record whether any emissions are normal or abnormal.**

(b) **Visible emission notations of the pneumatic fly ash conveyance shall be performed at least once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.**

(c) **Visible emission notations of the separators exhaust and the ash silo bin vent baghouse exhaust shall be performed at least once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.**

(d) **Visible emission notations of the dry spout shall be performed at least once per day during normal daylight operations when unloading ash through the dry spout. A trained employee shall record whether emissions are normal or abnormal.**

(e) **Visible emissions of the landfill area shall be performed at least once per day during normal daylight hours. A trained employee shall record whether emissions are normal or abnormal.**

(f) **If visible emissions are observed crossing the property line or boundaries of the property, right-of-way, or easement on which the source is located, 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.**

(g) **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.**

(h) **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.**

(i) **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.

(j) If abnormal emissions are observed at any baghouse exhaust or the truck loading and unloading points, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Observations 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. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.6.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the bin vent baghouse and the separators at least once per day when the pneumatic fly ash system is in operation. When for any reading, the pressure drop across the bin vent baghouse is outside the normal range of 2.5 to 4.5 inches of water or the normal range of 3 to 6 inches of water for the separators or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or 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 instrument used for determining the pressure shall comply with the Section C – Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

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

D.6.8 Record Keeping Requirements

(a) To document compliance with D.6.6, the Permittee shall maintain records of all visible emissions notations.

(b) To document compliance with D.6.7, the Permittee shall maintain records of the pressure drop across the separators and the silo bin vent baghouse.

(5) Section D.6 has been renumbered as D.7 and the table of contents has been modified accordingly.

(6) Condition D.7.7 has been modified as shown due to the addition of a new section D.6.

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

D.7.7 Record Keeping Requirements

(a) To document compliance with Section C - Opacity, Section C -Fugitive Dust Emissions, and Conditions ~~D.6.3 and D.6.6~~ **D.7.3 and D.7.6**, the Permittee shall maintain records of the visible emission notations of the fly ash storage pond area(s).

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

(7) The language of Section C.14 Instrument Specifications has been updated as follows:

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** ~~reading~~ 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.

(8) The name of the source has been changed throughout the permit as requested by the Permittee as follows:

~~PSI Energy, Inc.~~ **Duke Energy Indiana, Inc.** – Gallagher Generating Station

(9) The language of Section B.10, Annual Compliance Certification (ACC), has been revised. The emission statement reporting requirements changed. The submission date for the ACC will continue to depend on which county the source is located.

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

and

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

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent; and

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

(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).

(10) The language in Section B.11 has been updated as follows:

B.11 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), ~~by title,~~ responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions **or potential to emit**. **The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).**

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

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

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 043-22710-00004 and Significant Permit Modification No. 043-22712-00004. The staff recommend to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Appendix A: Emission Calculations

Company Name: PSI Energy, Inc. - Gallagher Generating Station
Address City IN Zip: Jackson Street, New Albany, IN 47150
Permit Mod. Number: 043-22712-00004
Source Mod. No. 043-22710-00004
Reviewer: Kristen Layton
Date: 10/30/06

Potential to Emit (Unlimited)

PM Emissions								
Landfill Traffic (a)	(after natural mitigation)					3.20	tons/yr	AP-42 Ch. 13.2.2 (Fifth edition, 1/95)
Activated Carbon Silo (d)						1.00	tons/yr	
Storage Pile Wind Erosion (b)						0.48	tons/yr	AP-42 Ch. 13.2.5.3 (Fifth edition, 1/95)
Pneumatic transfer to silo	17	ton/hr x	3.14 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	233.80	tons/yr	AP-42 Ch.11.12.2 (Updated October 2001)
Silo Bin Vent Baghouse see emissions after controls								
Trucks to landfill (a)						5.49	tons/yr	AP-42, Ch 13.2.2 (12/2003).
Trucks from landfill (a)						3.97	tons/yr	AP-42, Ch 13.2.2 (12/2003).
Truck Loading (c)	17	ton/hr x	0.00018 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.01	tons/yr	AP-42 Ch.11.12.2 (Fifth edition, 1/95)
Truck Unloading (c)	17	ton/hr x	0.00018 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.01	tons/yr	AP-42 Ch.11.12.2 (Fifth edition, 1/95)
Total emissions:						**247.97**	tons/yr	

(a) See calculations on Page 2,3,4
(b) See storage emissions calculations on Page 2
(c) Truck loading/unloading EF (AP 42 Ch. 13.2.4, 1995) = k(0.0032)[(U/5)^1.3/(m/2)^1.4] where k = particle size multiplier, U = mean wind speed (mph), m = mosture content. Therefore, EF = 0.74(0.0032)[(8.3/5)^1.3/(20/2)^1.4] = 0.00018 lb/ton {Note: m and U provided by PSI Gallagher}
(d) Negligible emissions from activated carbon silo, assumed to be less than 1.0 ton per year, as provided by source.

PM Emissions			*** * Limited Potential to Emit * ***			
Landfill Traffic	3.20	tons/yr			3.20	tons/yr
Activated Carbon Silo					1.00	tons/yr
Storage Pile Wind Erosion	0.48	tons/yr			0.48	tons/yr
Pneumatic Transfer to Silo(d)					8.00	tons/yr
Silo Bin Vent Baghouse (d)					1.80	tons/yr
Trucks to Landfill	5.49	tons/yr			5.49	tons/yr
Trucks from landfill	3.97	tons/yr			3.97	tons/yr
Truck Loading	0.01	tons/yr			0.01	tons/yr
Truck Unloading	0.01	tons/yr			0.01	tons/yr
Total emissions (Limited):					**23.97**	tons/yr

Potential to Emit (unlimited)

PM-10 Emissions								
Landfill Traffic (a)	after natural mitigation					0.98	tons/yr	AP-42 Ch. 13.2.2 (Fifth edition, 1/95)
Activated Carbon Silo						1.00	tons/yr	
Storage Pile Wind Erosion (b)						0.24	tons/yr	AP-42 Ch. 13.2.5.3 (Fifth edition, 1/95)
Pneumatic transfer to silo	17	ton/hr x	1.1 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	81.91	tons/yr	AP-42 Ch.11.12.2 (Updated October 2001)
Trucks to landfill (a)						1.68	tons/yr	AP-42, Ch 13.2.2 (12/2003).
Trucks from landfill (a)						1.21	tons/yr	AP-42, Ch 13.2.2 (12/2003).
Truck Loading (c)	17	ton/hr x	0.00018 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.01	tons/yr	AP-42 Ch.11.12.2 (Fifth edition, 1/95)
Truck Unloading (c)	17	ton/hr x	0.00018 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.01	tons/yr	AP-42 Ch.11.12.2 (Fifth edition, 1/95)
Total emissions						**87.04**	tons/yr	

(a) See calculations on Page 2,3,4
(b) See storage emissions calculations on Page 2
(c) Truck loading/unloading EF (AP 42 Ch. 13.2.4, 1995) = k(0.0032)[(U/5)^1.3/(m/2)^1.4] where k = particle size multiplier, U = mean wind speed (mph), m = mosture content. Therefore, EF = 0.74(0.0032)[(8.3/5)^1.3/(20/2)^1.4] = 0.00018 lb/ton {Note: m and U provided by PSI Gallagher}

PM-10 Emissions			**** Limited Potential to Emit****			
Landfill Traffic	0.98	tons/yr			0.98	tons/yr
Activated Carbon Silo					1.00	tons/yr
Storage Pile Wind Erosion	0.24	tons/yr			0.24	tons/yr
Pneumatic Transfer to Silo(d)					8.00	tons/yr
Silo Bin Vent Baghouse (d)					1.80	tons/yr
Trucks to landfill	1.68	tons/yr			1.68	tons/yr
Trucks from landfill	1.21	tons/yr			1.21	tons/yr
Truck Loading	0.01	tons/yr			0.01	tons/yr
Truck Unloading	0.01	tons/yr			0.01	tons/yr
Total emissions (Limited):					**14.94**	tons/yr

* * storage * *

PM and PM -10 Emissions

Storage emissions, which result from wind erosion, are determined by the following calculations:

From AP-42 (13.2.5-3) 1995

Emission Factor for Wind Erosion in g/m2 per year = k x N x P

where:

k= particle size multiplier

N = No. of disturbances per year

P = Erosion Potential (g/m2)

Note: According to AP-42 13.2.5.2, a disturbance occurs when material is added to pile, restoring erosion potential P. Since number of disturbances is based on the number of truck trips per year, the approximate area of disturbance is = total area of pile x 50 tons per trip/150,000 tons capacity of pile.

K for PM = 1.0 and 0.5 for PM-10

N = 3000 (based on 3000 unloadings per year)

P = (58 (u-ut)^2 + 25(u-ut) where u = friction velocity (m/s), ut = threshold friction velocity (m/s)

P = 58 (1.04-0.98)^2 + 25(1.04-0.98) = 1.71 g/m2

EF (g/m2) = 1.0*3000*1.71= 5130 g/m2

Area of pile disturbed = 252,928 m2 x 50 tons delived by truck/150,000 tons total capacity of storage = 84.3 m2

Emissions (PM) = (84.3*5130/1000)kg * 2.2 lb per kg/2000 tons per lb = **0.48 tons/yr**

Emissions (PM-10) = 0.48 x 0.5 = **0.24 tons/yr**

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* Trucks from silo to landfill unpaved roads * '

The following calculations determine the amount of emissions created by unpaved roads by trucks going to landfill, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Vehicle Miles travelled per year = 3673 miles per year

PM Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]

= 4.65 lb/mile

where k = 4.9 (particle size multiplier for PM)

s = 2 mean % silt content of unpaved roads

b = 0.45 Constant for PM-10 and PM-30 or TSP

W = 96 tons average vehicle weight

$$E = \frac{4.65 \text{ lb/mi} \times 3673 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{8.53} \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

Eext = E *[(365-p)/365] = **5.49** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

PM 10 Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]
= 1.42 lb/mile
where k = 1.5 (particle size multiplier for PM-10)
s = 2 mean % silt content of unpaved roads
b = 0.45 Constant for PM-10 and PM-30 or TSP
W = 96 tons average vehicle weight

E = (1.42 lb/mi x 3673 mi/yr) / 2000 lb/ton = **2.61** tons/yr

Taking natural mitigation due to precipitation into consideration:
Eext = E *[(365-p)/365] = **1.68** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

PSI Energy, Inc. - Gallagher Generating Station
* * Trucks from landfill back to silo unpaved r

The following calculations determine the amount of emissions created by unpaved roads by trucks returning from the landfill, based on 8,760 hours c
AP-42, Ch 13.2.2 (12/2003).

Vehicle Miles travelled per year = 3673 miles per year

PM Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]
= 3.35 lb/mile
where k = 4.9 (particle size multiplier for PM)
s = 2 mean % silt content of unpaved roads
b = 0.45 Constant for PM-10 and PM-30 or TSP
W = 47 tons average vehicle weight

E = (3.35 lb/mi x 3673 mi/yr) / 2000 lb/ton = **6.16** tons/yr

Taking natural mitigation due to precipitation into consideration:
Eext = E *[(365-p)/365] = **3.97** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

PM 10 Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]
= 1.03 lb/mile
where k = 1.5 (particle size multiplier for PM-10)
s = 2 mean % silt content of unpaved roads
b = 0.45 Constant for PM-10 and PM-30 or TSP
W = 47 tons average vehicle weight

E = (1.03 lb/mi x 3673 mi/yr) / 2000 lb/ton = **1.89** tons/yr

Taking natural mitigation due to precipitation into consideration:
Eext = E *[(365-p)/365] = **1.21** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

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* * Landfill Traffic unpaved roads * *

The following calculations determine the amount of emissions created by unpaved roads by equipment at the landfill, based on 8,760 hours of use ar
AP-42, Ch 13.2.2 (12/2003).

Vehicle Miles travelled per year = 355 miles per year

PM Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]
= 28.04 lb/mile
where k = 4.9 (particle size multiplier for PM)
s = 63.2 mean % silt content of unpaved roads
b = 0.45 Constant for PM-10 and PM-30 or TSP
W = 5 tons average vehicle weight

$$E = \frac{28.04 \text{ lb/mi} \times 355 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{4.98} \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

Eext = E *[(365-p)/365] = **3.20** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

PM 10 Emissions

Ef = k*[(s/12)^0.9]*[(W/3)^b]
= 8.58 lb/mile
where k = 1.5 (particle size multiplier for PM-10)
s = 63.2 mean % silt content of unpaved roads
b = 0.45 Constant for PM-10 and PM-30 or TSP
W = 5 tons average vehicle weight

$$E = \frac{8.58 \text{ lb/mi} \times 355 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{1.52} \text{ tons/yr}$$

Taking natural mitigation due to precipitation into consideration:

Eext = E *[(365-p)/365] = **0.98** tons/yr

where p = 130 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

concret2.xls (5/96)
Converted from concret2.wk4 (5/96)
Updated 12/2003 (KT)