



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: July 7, 2010

RE: Duke Energy Indiana, Inc.--Gallagher Gen. Station / 043-29145-00004

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

Mr. Patrick Coughlin
Duke Energy Indiana - Gallagher Generating Station
1000 East Main Street
Plainfield, IN 46168

July 7, 2010

Re: 043-29145-00004
Significant Permit Modification to
Part 70 Permit No.: T 043-7244-00004

Dear Mr. Coughlin:

Duke Energy Indiana - Gallagher Generating Station was issued a Part 70 Operating Permit on July 1, 2004 for an electric utility generating station. A letter requesting changes to this permit was received on April 6, 2010. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

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 Josiah Balogun, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Josiah Balogun or extension (4-5257), or dial (317) 234-5257.

Sincerely,

Tripurari P. Sinha, PhD., Section Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

JB

cc: File – Floyd County
Floyd County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

**PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY**

**Duke Energy Indiana, Inc. - Gallagher Generating Station
30 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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T043-7244-00004	
Original issued and signed 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 on April 9, 2007
Third Significant Permit Modification No. 043-25682-00004

Significant Permit Modification No. 043-29145-00004	
Issued by: <i>Tripurari Sinha</i> Tripurari P. Sinha, PhD., Section Chief Permits Branch Office of Air Quality	Issuance Date: July 7, 2010

TABLE OF CONTENTS

A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

B GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- 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)]
- B.3 Term of Condition [326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-7-7]
- B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
- B.6 Severability [326 IAC 2-7-5(5)]
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.8 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
- B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]
- 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]
- B.12 Emergency Provisions [326 IAC 2-7-16]
- B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]
- B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- 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]
- B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]
- B.18 Source Modification [326 IAC 1-2-42] [326 IAC 2-7-10.5]
- B.19 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]
- B.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]
- B.21 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
- 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]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]
- B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

C SOURCE OPERATION CONDITIONS

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]
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Motor Vehicle Fugitive Dust Sources [326 IAC 6-4-4]
- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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)]

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

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

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

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]

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

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

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

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]

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]

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]

Stratospheric Ozone Protection

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

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

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

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]

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

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-4-9]

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

Compliance Determination Requirements

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

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

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

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

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

D.1.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.10 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.11 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

D.1.12 Record Keeping Requirements

D.1.13 Reporting Requirements

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

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]
- D.2.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]
- D.2.3 Sulfur Dioxide (SO₂) [326 IAC 7-4-9]
- D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.2.6 Operation of Baghouse [326 IAC 2-7-6(6)]
- D.2.7 Continuous Emissions Monitoring [326 IAC 3-5]
- D.2.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

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

- D.2.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.2.10 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.2.11 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

- D.2.12 Record Keeping Requirements
- D.2.13 Reporting Requirements

D.3 FACILITY OPERATION CONDITIONS - One (1) Coal-Fired Boiler (Boiler No.3)

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]
- D.3.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]
- D.3.3 Sulfur Dioxide (SO₂) [326 IAC 7-4-9]
- D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.3.6 Operation of Baghouse [326 IAC 2-7-6(6)]
- D.3.7 Continuous Emissions Monitoring [326 IAC 3-5]
- D.3.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

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

- D.3.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.3.10 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.3.11 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

- D.3.12 Record Keeping Requirements
- D.3.13 Reporting Requirements

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

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]
- D.4.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]
- D.4.3 Sulfur Dioxide (SO₂) [326 IAC 7-4-9]
- D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.4.6 Operation of Baghouse [326 IAC 2-7-6(6)]
- D.4.7 Continuous Emissions Monitoring [326 IAC 3-5]
- D.4.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-9]

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

- D.4.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.4.10 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.4.11 SO₂ Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

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

- D.4.12 Record Keeping Requirements
- D.4.13 Reporting Requirements

D.5 FACILITY OPERATION CONDITIONS - Coal Storage and Handling

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

- D.5.1 Particulate [326 IAC 6-3-2]
- D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

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

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)]

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

- D.5.5 Record Keeping Requirements

D.6 FACILITY OPERATION CONDITIONS – Dry Fly Ash Handling and Disposal System

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

- D.6.1 PSD Minor Limits [326 IAC 2-2] and Nonattainment NSR Limits [326 IAC 2-1.1-5]
- D.6.2 Particulate [326 IAC 6-3-2]

Compliance Determination Requirements

- D.6.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.6.4 PM and PM10 Control
- D.6.5 Preventative Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Monitoring Requirements

- D.6.6 Visible Emission Notations
- D.6.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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

- D.6.8 Record Keeping Requirements

D.7 FACILITY OPERATION CONDITIONS - Insignificant Activities

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]
- D.7.2 Organic Solvent Degreasing Operations: Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]
- D.7.3 Fugitive Dust Emission Limitations [326 IAC 6-4-2]
- D.7.4 Particulate [326 IAC 6-3-2]
- D.7.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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)]

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

- D.7.7 Record Keeping Requirements

D.8 EMISSIONS UNIT OPERATION CONDITIONS

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

- D.8.1 PSD Minor Limits and Nonattainment NSR Limits [326 IAC 2-2] [326 IAC 2-1.1-5]
- D.8.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
- D.8.3 Preventative Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.8.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.8.5 Particulate Control [326 IAC 2-7-6(6)]

Compliance Monitoring Requirements

- D.8.6 Visible Emission Notations
- D.8.7 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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

- D.8.8 Record Keeping Requirements

E.1 NEW SOURCE PERFORMANCE STANDARDS [326 IAC 12-1][40 CFR 60]

- E.1.1 General Provisions Relating to new Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]
- E.1.2 Standard of Performance for Nonmetallic Mineral Processing Plants Requirements [326 IAC 12-1] [40 CFR 60, Subpart OOO]

E.2 ACID RAIN PROGRAM CONDITIONS

- E.2.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]
- E.2.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

F RESERVED

G Clean Air Interstate (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs – CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

- G.1 Automatic Incorporation of Definitions [326 IAC 24-1-7(e)] [326 IAC 24-2-7(e)] [326 IAC 24-3-7(e)] [40 CFR 97.123(b)] [40 CFR 97.223(b)] [40 CFR 97.323(b)]

- G.2 Standard Permit Requirements [326 IAC 24-1-4(a)] [326 IAC 24-2-4(a)]
[326 IAC 24-3-4(a)] [40 CFR 97.106(a)] [40 CFR 97.206(a)] [40 CFR 97.306(a)]
- G.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-1-4(b)]
[326 IAC 24-2-4(b)] [326 IAC 24-3-4(b)] [40 CFR 97.106(b)] [40 CFR 97.206(b)]
[40 CFR 97.306(b)]
- G.4.1 Nitrogen Oxides Emission Requirements [326 IAC 24-1-4(c)] [40 CFR 97.106(c)]
- G.4.2 Sulfur Dioxide Emission Requirements [326 IAC 24-2-4(c)] [40 CFR 97.206(c)]
- G.4.3 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)]
[40 CFR 97.306(c)]
- G.5 Excess Emissions Requirements [326 IAC 24-1-4(d)] [326 IAC 24-2-4(d)]
[326 IAC 24-3-4(d)] [40 CFR 97.106(d)] [40 CFR 97.206(d)] [40 CFR 97.306(d)]
- G.6 Record Keeping Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)]
[326 IAC 24-3-4(e)] [326 IAC 2-7-5(3)] [40 CFR 97.106(e)] [40 CFR 97.206(e)]
[40 CFR 97.306(e)]
- G.7 Reporting Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]
- G.8 Liability [326 IAC 24-1-4(f)] [326 IAC 24-2-4(f)] [326 IAC 24-3-4(f)] [40 CFR 97.106(f)]
[40 CFR 97.206(f)] [40 CFR 97.306(f)]
- G.9 Effect on Other Authorities [326 IAC 24-1-4(g)] [326 IAC 24-2-4(g)] [326 IAC 24-3-4(g)]
[40 CFR 97.106(g)] [40 CFR 97.206(g)] [40 CFR 97.306(g)]

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: 30 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 PM2.5
Attainment or unclassifiable for all other criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD Rules;
Major Source, under 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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in 1994. The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992. The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in 1994. The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994. The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.

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.

- (g) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;

- (3) Whether compliance was continuous or intermittent; 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records 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 a compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c). The notification requirement per (a)(4) of this condition does not apply to emission trades of SO₂ or 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 SO₂ 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]
Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period. 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

- (a) The Permittee shall 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 twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of 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
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The 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(II)) 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(II)) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and

ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

- (f) If the Permittee is required to comply with the recordkeeping provisions of (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(II)) 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
MC 61-53 IGCN 1003
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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in 1994. The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.

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 □/m³
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 (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. 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 [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse 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 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 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.1.10 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.1.11 SO₂ 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 SO₂ 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 SO₂ continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide

information related to SO₂ 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.1.12 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, and D.1.10, 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 baghouse parametric monitoring readings.
- (b) To document compliance with Conditions D.1.3, D.1.8 and D.1.11, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ 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 SO₂ 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.1.13 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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992. The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.

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 □/m³
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 (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. 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 [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse 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 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 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.2.10 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.2.11 SO₂ 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 SO₂ 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 SO₂ continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide

information related to SO₂ 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.2.12 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, and D.2.10, 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 baghouse parametric monitoring readings.
- (b) To document compliance with Conditions D.2.3, D.2.8 and D.2.11, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ 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 SO₂ 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.2.13 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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in 1994. The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.

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 □/m³
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 (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. 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 [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse 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 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 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.3.10 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.3.11 SO₂ 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 SO₂ 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 SO₂ continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide

information related to SO₂ 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.3.12 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 and D.3.10 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 baghouse parametric monitoring readings.
- (b) To document compliance with Conditions D.3.3, D.3.8 and D.3.11 the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ 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 SO₂ 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.3.13 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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994. The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.

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 □/m³
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 [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the baghouse 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 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 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.4.10 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.4.11 SO₂ 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 SO₂ 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 SO₂ continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide

information related to SO₂ 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.4.12 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, and D.4.10, 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 baghouse parametric monitoring readings.
- (b) To document compliance with Conditions D.4.3, D.4.8 and D.4.11, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ 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 SO₂ 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.4.13 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:

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

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 condensable 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^oC) (one hundred degrees Fahrenheit (100^oF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^oC) (one hundred degrees Fahrenheit (100^oF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^oC) (one hundred twenty degrees Fahrenheit (120^oF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control) 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:

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

- (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:

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

- (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 D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

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

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

D.8.1 PSD Minor Limit and Nonattainment NSR [326 IAC 2-2] [326 IAC 2-1.1-5]

Pursuant to Significant Source Modification No. 043-29143-00004, the Permittee shall comply with the following:

- (a) PM emissions from the sorbent storage silos shall not exceed 3.4 pounds per hour.
(b) PM_{2.5} emissions from the sorbent storage silos shall not exceed 1.8 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from vehicular traffic, will ensure that the PM emissions from the sorbent storage silos system are less than 25 tons/yr and PM_{2.5} emissions are less than 10 tons/yr, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable to the 2010 modification.

D.8.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the dry sorbent silo shall not exceed 29.4 pounds per hour when operating at a process weight rate of 24 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

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventative Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan of this permit, is required for these sorbent silos and their control devices.

Compliance Determination Requirements

D.8.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within sixty (60) days of reaching maximum capacity but no later than one hundred

and eighty (180) days after the initial startup of the sorbent silo baghouse, in order to determine compliance with Condition D.8.1, the Permittee shall perform PM testing on one (1) of the two (2) sorbent silo baghouse utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b) Within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after the initial startup of the sorbent silo baghouse, the Permittee shall perform PM10 testing on one (1) of the two (2) sorbent silo baghouse utilizing methods as approved by the Commissioner. This testing shall be performed once to demonstrate compliance with the PM10 limit. Testing shall be conducted in accordance with Section C- Performance Testing.
- (c) In order to determine compliance with Condition D.8.1, the Permittee shall perform PM2.5 testing of one (1) of the two (2) sorbent silo baghouse within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.8.5 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, the baghouse for particulate control shall be in operation and control emissions at all times that trucks are unloading into the dry sorbent injection silo.

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

D.8.6 Visible Emissions Notations

- (a) Visible emission notations of a sorbent silo baghouse stack exhaust shall be performed once per week during normal daylight operations when loading. A trained employee shall record whether emissions are normal or abnormal.
- (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, not counting startup or shut down time.
- (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, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.8.7 Parametric Monitoring

The Permittee shall record the pressure drop across each baghouse used in conjunction with the sorbent silo, at least once per day when a sorbent silo is being loaded by truck and exhausting to the atmosphere. When for any one reading, the pressure drop across a baghouse is outside the

normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered deviation from the permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated as specified by the manufacturer.

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

D.8.8 Record Keeping Requirements

- (a) To document compliance with Condition D.8.6 - Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations of the sorbent silo exhaust stacks when loading. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.8.7 - Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the sorbent silo. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

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

New Source Performance Standards [326 IAC 12-1] [40 CFR 60]

E.1.1 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the sorbent storage silo, except as otherwise specified in 40 CFR Part 60, Subpart 000.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:
Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue,
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Standard of Performance for Nonmetallic Mineral Processing Plants Requirements [326 IAC 12-1] [40 CFR 60, Subpart 000]

Pursuant to 40 CFR 60 Subpart 000, the Permittee shall comply with the applicable provisions of Standard of Performance for Nonmetallic Mineral Processing Plants which are incorporated by reference as 326 IAC 12 as specified as follows:

- (1) 40 CFR 60.670
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672
- (4) 40 CFR 60.673
- (5) 40 CFR 60.674
- (6) 40 CFR 60.675
- (7) 40 CFR 60.676
- (8) Table 1 to Subpart 000
- (9) Table 2 to Subpart 000
- (10) Table 3 to Subpart 000

SECTION E.2 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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in 1994. The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992. The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in 1994. The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994. The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.

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.2.1 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.2.2 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 RESERVED

SECTION G Clean Air Interstate (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs – CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 1008

CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a) and 326 IAC 24-3-1(a)

- (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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in 1994. The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992. The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.

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). Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in 1994. The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.

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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994. The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.

CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a) and 326 IAC 24-3-1(a) Continued

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.

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

G.1 Automatic Incorporation of Definitions [326 IAC 24-1-7(e)] [326 IAC 24-2-7(e)] [326 IAC 24-3-7(e)]
[40 CFR 97.123(b)] [40 CFR 97.223(b)] [40 CFR 97.323(b)]

This CAIR permit is deemed to incorporate automatically the definitions of terms under 326 IAC 24-1-2, 326 IAC 24-2-2, and 326 IAC 24-3-2.

G.2 Standard Permit Requirements [326 IAC 24-1-4(a)] [326 IAC 24-2-4(a)] [326 IAC 24-3-4(a)]
[40 CFR 97.106(a)] [40 CFR 97.206(a)] [40 CFR 97.306(a)]

- (a) The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units shall operate each source and unit in compliance with this CAIR permit.
- (b) The CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units subject to this CAIR permit are, Boiler No. 1, Boiler No. 2, Boiler No. 3, and Boiler No. 4.

G.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-1-4(b)]
[326 IAC 24-2-4(b)] [326 IAC 24-3-4(b)] [40 CFR 97.106(b)] [40 CFR 97.206(b)]
[40 CFR 97.306(b)]

- (a) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall comply with the applicable monitoring, reporting, and record keeping requirements of 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.
- (b) The emissions measurements recorded and reported in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 shall be used to determine compliance by each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source with the CAIR NO_x emissions limitation under 326 IAC 24-1-4(c), CAIR SO₂ emissions limitation under 326 IAC 24-2-4(c), and CAIR NO_x ozone season emissions limitation under 326 IAC 24-3-4(c) and Condition G.4.1, Nitrogen Oxides Emission Requirements, Condition G.4.2, Sulfur Dioxide Emission Requirements, and Condition G.4.3, Nitrogen Oxides Ozone Season Emission Requirements.

G.4.1 Nitrogen Oxides Emission Requirements [326 IAC 24-1-4(c)] [40 CFR 97.106(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 326 IAC 24-1-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 326 IAC 24-1-11.
- (b) A CAIR NO_x unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.

- (c) A CAIR NO_x allowance shall not be deducted for compliance with the requirements under 326 IAC 24-1-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (d) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x allowance tracking system accounts in accordance with 326 IAC 24-1-9, 326 IAC 24-1-10, and 326 IAC 24-1-12.
- (e) A CAIR NO_x allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x annual trading program. No provision of the CAIR NO_x annual trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-1-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-1-8, 326 IAC 24-1-9, 326 IAC 24-1-10, or 326 IAC 24-1-12, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x source's compliance account is incorporated automatically in this CAIR permit.

G.4.2 Sulfur Dioxide Emission Requirements [326 IAC 24-2-4(c)] [40 CFR 97.206(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period under 326 IAC 24-2-8(j) and 326 IAC 24-2-8(k) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 326 IAC 24-2-10.
- (b) A CAIR SO₂ unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.
- (c) A CAIR SO₂ allowance shall not be deducted for compliance with the requirements under 326 IAC 24-2-4(c)(1), for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (d) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ allowance tracking system accounts in accordance with 326 IAC 24-2-8, 326 IAC 24-2-9, and 326 IAC 24-2-11.
- (e) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ trading program. No provision of the CAIR SO₂ trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-2-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR SO₂ allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-2-8, 326 IAC 24-2-9, or 326 IAC 24-2-11, every allocation, transfer or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in this CAIR permit.

G.4.3 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)] [40 CFR 97.306(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of the each CAIR NO_x ozone season source and each CAIR NO_x ozone season unit at the source shall hold, in the source's compliance account, CAIR NO_x ozone season allowances available for compliance deductions for the control period under 326 IAC 24-3-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x ozone season units at the source, as determined in accordance with 326 IAC 24-3-11.
- (b) A CAIR NO_x ozone season unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO_x ozone season allowance shall not be deducted for compliance with the requirements under 326 IAC 24-3-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x ozone season allowance was allocated.
- (d) CAIR NO_x ozone season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x ozone season allowance tracking system accounts in accordance with 326 IAC 24-3-9, 326 IAC 24-3-10, and 326 IAC 24-3-12.
- (e) A CAIR NO_x for a control period allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x ozone season trading program. No provision of the CAIR NO_x ozone season trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-3-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x for a control period allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-3-8, 326 IAC 24-3-9, 326 IAC 24-3-10, or 326 IAC 24-3-12, every allocation, transfer, or deduction of a CAIR NO_x ozone season allowance to or from a CAIR NO_x ozone season source's compliance account is incorporated automatically in this CAIR permit.

G.5 Excess Emissions Requirements [326 IAC 24-1-4(d)] [326 IAC 24-2-4(d)] [326 IAC 24-3-4(d)] [40 CFR 97.106(d)] [40 CFR 97.206(d)] [40 CFR 97.306(d)]

- (a) The owners and operators of a CAIR NO_x source and each CAIR NO_x unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation shall do the following:
 - (1) Surrender the CAIR NO_x allowances required for deduction under 326 IAC 24-1-9(j)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-1-4, the Clean Air Act (CAA), and applicable state law.

- (b) The owners and operators of a CAIR SO₂ source and each CAIR SO₂ unit that emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation shall do the following:

- (1) Surrender the CAIR SO₂ allowances required for deduction under 326 IAC 24-2-8(k)(4).
- (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-2-4, the Clean Air Act (CAA), and applicable state law.

- (c) The owners and operators of a CAIR NO_x ozone season source and each CAIR NO_x ozone season unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x ozone season emissions limitation shall do the following:

- (1) Surrender the CAIR NO_x ozone season allowances required for deduction under 326 IAC 24-3-9(j)(4).
- (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-3-4, the Clean Air Act (CAA), and applicable state law.

G.6 Record Keeping Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[326 IAC 2-7-5(3)] [40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall keep 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 from the date the document was created:

- (a) The certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), and 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation. The certificate and documents shall be retained on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond such five (5) year period until such documents are superseded because of the submission of a new account certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), and 326 IAC 24-3-6(h) changing the CAIR designated representative.
- (b) All emissions monitoring information, in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11, provided that to the extent that 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 provides 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 CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.
- (d) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program or to demonstrate compliance with the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.

This period may be extended for cause, at any time before the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

G.7 Reporting Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

- (a) The CAIR designated representative of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall submit the reports required under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, including those under 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.
- (b) Pursuant to 326 IAC 24-1-4(e), 326 IAC 24-2-4(e), and 326 IAC 24-3-4(e) and 326 IAC 24-1-6(e)(1), 326 IAC 24-2-6(e)(1), and 326 IAC 24-3-6(e)(1), each submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."
- (c) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to IDEM, OAQ, the information shall be submitted to:

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

- (d) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to U.S. EPA, the information shall be submitted to:

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

G.8 Liability [326 IAC 24-1-4(f)] [326 IAC 24-2-4(f)] [326 IAC 24-3-4(f)] [40 CFR 97.106(f)]
[40 CFR 97.206(f)] [40 CFR 97.306(f)]

The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall be liable as follows:

- (a) Each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall meet the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and

CAIR NO_x ozone season trading program, respectively.

- (b) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or the CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source shall also apply to the owners and operators of such source and of the CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units at the source.
- (c) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit or the CAIR designated representative of a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall also apply to the owners and operators of such units.

G.9 Effect on Other Authorities [326 IAC 24-1-4(g)] [326 IAC 24-2-4(g)] [326 IAC 24-3-4(g)]
[40 CFR 97.106(g)] [40 CFR 97.206(g)] [40 CFR 97.306(g)]

No provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, a CAIR permit application, a CAIR permit, or an exemption under 326 IAC 24-1-3, 326 IAC 24-2-3, and 326 IAC 24-3-3 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act (CAA).

G.10 CAIR Designated Representative and Alternate CAIR Designated Representative
[326 IAC 24-1-6] [326 IAC 24-2-6] [326 IAC 24-3-6] [40 CFR 97, Subpart BB] [40 CFR 97,
Subpart BBB] [40 CFR 97, Subpart BBBB]

Pursuant to 326 IAC 24-1-6, 326 IAC 24-2-6, and 326 IAC 24-3-6:

- (a) Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source, including all CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units at the source, shall have one (1) and only one (1) CAIR designated representative, with regard to all matters under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program concerning the source or any CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source.
- (b) The provisions of 326 IAC 24-1-6(f), 326 IAC 24-2-6(f), and 326 IAC 24-3-6(f) shall apply where the owners or operators of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source choose to designate an alternate CAIR designated representative.

Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), whenever the term "CAIR designated representative" is used, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

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: 30 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Duke Energy Indiana, Inc. - Gallagher Generating Station
Source Address: 30 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: 30 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.

**Attachment A
to a Part 70 Operating Permit**

New Source Performance Standards (NSPS)

**40 CFR 60, Subpart OOO— Standards of Performance for Nonmetallic
Mineral Processing Plants**

Source Name:	Duke Energy Indiana - Gallagher Generating Station
Source Location:	30 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 Permit Modification No.:	043-29145-00004
Permit Reviewer:	Josiah Balogun

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crush or Crushing means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(2) Sand and Gravel.

(3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

(6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(7) Pumice.

(8) Gilsonite.

(9) Talc and Pyrophyllite.

(10) Boron, including Borax, Kernite, and Colemanite.

(11) Barite.

(12) Fluorospar.

(13) Feldspar.

(14) Diatomite.

(15) Perlite.

(16) Vermiculite.

(17) Mica.

(18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet material processing operation(s) means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

(2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

- (i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.
 - (ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g. , using a strip chart recorder or a data logger).
 - (iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.
 - (iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
 - (v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.
 - (vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.
 - (vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.
 - (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.
- (i) Installation of the bag leak detection system;
 - (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;
 - (iii) Operation of the bag leak detection system, including quality assurance procedures;
 - (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
 - (v) How the bag leak detection system output will be recorded and stored; and
 - (vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.
- (3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
 - (ii) Sealing off defective bags or filter media;
 - (iii) Replacing defective bags or filter media or otherwise repairing the control device;
 - (iv) Sealing off a defective fabric filter compartment;
 - (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
 - (vi) Shutting down the process producing the PM emissions.
- (e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A–7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

§ 60.675 Test methods and procedures.

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A–1 through A–7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.
- (b) The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:
- (1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A–3 of this part or Method 17 of Appendix A–6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.
 - (2) Method 9 of Appendix A–4 of this part and the procedures in §60.11 shall be used to determine opacity.
- (c)(1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A–4 of this part and the procedures in §60.11, with the following additions:
- (i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - (ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A–4 of this part, Section 2.1) must be followed.
 - (iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- (2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9 (40 CFR part 60, Appendix A–4), the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A–4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A–4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A–3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A–3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A–1 of this part [*i.e.*, velocity head <1.3 mm H₂O (0.05 in. H₂O)] and referred to in EPA Method 5 of Appendix A–3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.*, from vendor-supplied fan curves) to the

building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A–4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be

postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

Table 1 to Subpart 000—Exceptions to Applicability of Subpart A to Subpart 000

Table 1 to Subpart 000—Exceptions to Applicability of Subpart A to Subpart 000

Subpart A reference	Applies to subpart 000	Explanation
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 2 to Subpart 000—Stack Emission Limits for Affected Facilities With Capture Systems

Table 2 to Subpart 000—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

^aExceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

^bThe stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart 000—Fugitive Emission Limits

Table 3 to Subpart 000—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit	The owner or operator must meet the	The owner or operator must demonstrate compliance with these limits by
------------------	---	--	---

	for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	following fugitive emissions limit for crushers at which a capture system is not used * * *	conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
			A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b)

			are exempt from this 5-year repeat testing requirement.
--	--	--	---

[Browse Previous](#) / [Browse Next](#)

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

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

Source Description and Location

Source Name:	Duke Energy Indiana - Gallagher Generating Station
Source Location:	30 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.:	043-29143-00004
Significant Permit Modification No.:	043-29145-00004
Permit Reviewer:	Josiah Balogun

Public Notice Information

On May 13, 2008, the Office of Air Quality (OAQ) had a notice published in the New Albany Tribune in New Albany, Indiana, stating that Duke Energy Indiana - Gallagher Generating Station had applied for a Significant Modification to their Part 70 Operating Permit issued on July 1, 2004 relating to the installation of a dry sorbent injection (DSI) system on Units 2 and 4. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received

On June 11, 2010, IDEM, OAQ received comments from Rachael Hamilton of the Louisville Metro Air Pollution Control District (APCD). The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflects the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Comment 1: In the Technical Support Document (TSD) table for PSD and NSR Permit level Determinations, the Projected Actual Emission" are significantly less than the 'Past Actual Emissions." TSD page 5. Therefore, APCD urges Duke Energy and/or IDEM to explain the basis for these projected reductions.

- Response 1: The project consists of injecting sorbent into the exhaust gases originating from the boiler. The dry sorbent injecting (DSI) control system will react with sulfur dioxide to form particulates, which will be recovered by the baghouse. The projected reduction in emissions is the result of higher control efficiency from the baghouse and dry sorbent injecting (DSI) control systems and projected utilization of Units 2 and 4. The applicant will be required to keep records and report of the projected emissions for a period of five (5) years in accordance with 326 IAC 2-2-8 (Source Obligation) for Boilers 2 and 4.
- Comment 2: With EPA's newly finalized SO₂ standard, the SO₂ reduction shown in the table for PSD and NSR Permit Level Determination will certainly benefit Louisville and other downwind cities and States. However, APCD is concerned that additional reductions will be necessary to reach attainment in the MSA shared by Louisville and the Gallagher Station. In 2004, representatives of Cinergy Corporation (Gallagher Station prior owner), after discussions with Louisville Metro Mayor Jerry Abramson, committed to installing baghouses on all four units at the Gallagher Station to reduce particulate matter (PM) emissions. In addition, in a settlement agreement filed with the Indiana utility Regulatory Commission, PSI Energy stated that while the baghouses would "not directly reduce SO₂ emissions," they would "give PSI the ability to materially reduce the rate of SO₂ emissions by allowing it to burn lower-sulfur coal" at Gallagher, thus reducing SO₂ as well as PM. Construction of the baghouses was completed in 2008. However, to APCD's knowledge, Cinergy/PSI's successor Duke Energy has yet to switch to burning lower-sulfur coal at the Gallagher Station. Therefore, APCD urges IDEM to require the use of low sulfur coal at the Gallagher Station.
- Response 2: IDEM, OAQ was not involved in the settlement agreement between the Indiana utility Regulatory Commission and Cinergy Corporation. IDEM, OAQ has no regulations that would require burning lower sulfur coal at this time. In addition, Duke Energy Indiana - Gallagher Generating Station is under a consent decree which establishes lower SO₂ emission limits for units 1-4. The provisions of the consent decree were negotiated with US EPA and posted for public comments. These changes are being made pursuant to that consent decree and are consistent with the requirements contained therein.

**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 - Gallagher Generating Station
Source Location:	30 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.:	043-29143-00004
Significant Permit Modification No.:	043-29145-00004
Permit Reviewer:	Josiah Balogun

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 approvals:

- (a) Acid Rain (AR) No. 043-19351-00004, issued on June 28, 2006;
- (b) Significant Permit Modification No. 043-22575-00004, issued on November 3, 2006;
- (c) Significant Source Modification No. 043-22710-00004, issued on February 23, 2007;
- (d) Significant Permit Modification No. 043-22712-00004, issued on April 9, 2007;
- (e) AR - Phase 2 NOx No. 043-24147-00004, issued on August 21, 2007; and
- (f) Significant Permit Modification - CAIR No. 043-25682-00004, issued on July 10, 2008.

County Attainment Status

The source is located in Floyd County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Floyd County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM_{2.5}.

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Floyd County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM2.5**
 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 New Source Review Rule for PM2.5 promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
 Floyd County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Since this source is classified as 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	> 100
PM10	> 100
PM _{2.5}	> 100
SO ₂	> 100
VOC	> 100
CO	> 100
NO _x	> 100

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM2.5 and SO2 emissions are emitted at a rate of 100 tons

- (c) These emissions are based upon Significant Source Modification No. 043-22710-00004, issued on February 23, 2007.

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)
Single HAP	> 10
Total HAPs	> 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 - Gallagher Generating Station on April 6, 2010, relating to the installation of a dry sorbent injection (DSI) system on Units 2 and 4. The dry sorbent injection system consists of two storage silos and injection delivery systems, each storage silo will have a storage capacity of approximately 300 tons. The proposed DSI system will significantly reduce the emissions of SO₂ and is expected to reduce the emissions of other acid gases. The following is a list of the proposed and modified emission unit(s) and pollution control device(s):

Modified Emission Units:

- (a) 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). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992.

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. 4, construction commenced prior to August 17, 1971, with a nominal heat input capacity of 1390 million Btu per hour (MMBtu/hr). Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994.

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.

New Emission Units:

- (a) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

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

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

Pollutant	Potential To Emit (tons/year)
PM	27.9
PM10	14.2
PM _{2.5}	13.5
SO ₂	0
VOC	0
CO	0
NO _x	0

HAPs	Potential To Emit (tons/year)
Single HAP	< 10
Total HAPs	< 25

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because the emission unit has potential to emit greater than 25 tons per year of PM emissions. Additionally, the modification will be incorporated into the Part 70 Operation Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because this permit modification requires a case-by-case determination of emission limits.

Permit Level Determination – PSD and Non attainment NSR

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Past Actual to Future Projected Analysis for Boilers 2 and Unit 4									
	PMf (tons)	PM10fc (Tons)	PM2.5fc (tons)	S02 (tons)	NOx (tons)	CO (tons)	VOC (tons)	Hg (lbs)	Pb (lbs)
Past Act. emissions for Boilers 2 and 4	753	1876	1796	29436	2810	181	22	60	303
Projected Act. Boilers 2 & 4	28	82	68	2907	1147	84	10	28	141
Change in Emissions	-725	-1794	-1728	-26529	-1663	-97	-12	-32	-167
Actual To Projected Actual emission increase	0	0	0	0	0	0	0	--	--

The Permittee completed an Actual to Potential test (pursuant to 326 IAC 2-2-2, and 326 IAC 2-1.1-5) for this modification at a major stationary source that indicates that the modification will not be major for Prevention of Significant Deterioration (PSD) (326 IAC 2-2) or Nonattainment NSR (326 IAC 2-1.1.5). IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with 326 IAC 2-2-8 (Source Obligation) for Boilers 2 and 4.

Potential to Emit Table (tons/year) for new emission units									
New Units	PM (tons)	PM10 (Tons)	PM2.5 (tons)	S02 (tons)	NOx (tons)	CO (tons)	VOC (tons)	Hg (lbs)	Pb (lbs)
Sorbent Silo SS-01 and SS-02	14.89	11.5	7.88	0	0	0	0	--	--
Loading additional material into trucks at ash silo F1	0.31	0.14	0.03	0	0	0	0	--	--
Increased Number of pile disturbances, wind erosion F2	0.25	0.12	0.02	0	0	0	0	--	--
Hauling additional material into landfill F3	6.64	1.69	1.69	0	0	0	0	--	--
Increased hours of vehicle traffic on landfill F4	0.37	0.16	0.16	0	0	0	0	--	--
Truck hauling paved roads F5	2.03	0.39	0.06	0	0	0	0	--	--
Unloading additional material into landfill	0.31	0.14	0.03	0	0	0	0	--	--
Loading Silo Weigh Bins	0.0195	0.091	0.014	0	0	0	0	--	--
Total for Modification	24.82	14.2	9.88	0	0	0	0	--	--
Significant Levels	25	15	--	40	40	100	40	200	1200
Nonattainment NSR	--	--	10	--	--	--	--	--	--
NSR Applies (Y/N)	No	No	No	No	No	No	No	No	No

The PM_{2.5} emissions from this modification are from sorbent silo, resulting only in filterable PM emissions. Since there are no condensable emissions associated with the sorbent injection system, loading additional material into trucks at the ash silo, increased number of pile disturbances, wind erosion, hauling additional material into landfill, increased hours of vehicle traffic on landfill, truck hauling paved roads, unloading additional material into landfill, and the loading Silo Weigh bins, the controlled PM/PM10/PM2.5 emissions rate are based on engineering estimate. It is reasonable to conclude that PM2.5 emissions will be less than PM10 emissions due

to the fact that PM10 emissions include particulate emissions less than 10 microns and greater than 2.5 microns in addition to the emissions less than 2.5 microns. The PM2.5 emissions shall

be controlled by a baghouse which shall be in operation at all times and the source will demonstrate compliance with the PM2.5 emission limit by testing the emissions of PM2.5. The U.S. EPA's AP-42 emission factors were used to calculate the uncontrolled emissions.

Federal Rule Applicability Determination

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

The two (2) sorbent storage silos, identified as SS-01 and SS-02 are subject to the requirements of the New Source Performance Standard, 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, because the proposed project may involve milling of trona which is considered as a nonmetallic mineral as defined in 40 CFR 60.671. The specific facility subject to this rule includes the following.

- (a) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

The two (2) sorbent storage silos, identified as SS-01 and SS-02 are subject to the following sections of 40 CFR Part 60, Subpart OOO.

- (1) 40 CFR 60.670
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672
- (4) 40 CFR 60.673
- (5) 40 CFR 60.674
- (6) 40 CFR 60.675
- (7) 40 CFR 60.676
- (8) Table 1 to Subpart 000
- (9) Table 2 to Subpart 000
- (10) Table 3 to Subpart 000

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this proposed modification.
- (c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the 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	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)
Sorbent Silo (PM)	Baghouse	Y	18	0.92	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

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

This source is a major source for PSD because the potential to emit of one of the regulated pollutants are emitted at a rate greater than 100 tons per year and an existing major source under Nonattainment NSR (326 IAC 2-1.1-5) because the potential to emit of PM_{2.5} is greater than 100 tons per year and is in 1 of 28 source categories. The uncontrolled potential to emit of this modification is greater than 25 tons/yr for PM and greater than 10 tons per year for PM_{2.5}. In order to make the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable to the 2010 modification, the Permittee has taken the following limits:

- (a) PM emissions from the sorbent storage silos shall not exceed 3.4 pounds per hour.
- (b) PM_{2.5} emissions from the sorbent storage silos shall not exceed 1.8 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from vehicular traffic, will ensure that the PM emissions from the sorbent storage silos system are less than 25 tons/yr and PM_{2.5} emissions are less than 10 tons/yr, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable to the 2010 modification.

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

The operation of dry sorbent silo 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 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the dry sorbent silo shall not exceed 29.4 pounds per hour when operating at a process weight rate of 24 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:

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

The baghouse shall be in operation at all times the emission unit is in operation, 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

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:

Testing Requirements

(a) PM, PM10 and PM2.5 Testing

Emission Units	Control Device	Next Test date	Pollutants	Frequency of testing
Sorbent Storage Silo	Baghouse	Within 60 days of reaching maximum capacity but not later than 180 days after the startup	PM	Every five years
Sorbent Storage Silo	Baghouse	Within 60 days of reaching maximum capacity but not later than 180 days after the startup	PM10	One time testing
Sorbent Storage Silo	Baghouse	Within 60 days of reaching maximum capacity but not later than 180 days after the startup	PM _{2.5}	Every five years

The compliance monitoring requirements applicable to this source are as follows

Facilities	Control	Parameter	Frequency	Range	Excursions and Exceedances
Sorbent Storage Silo	Baghouse	Water Pressure Drop	Daily	1.0 to 6.0 inches	Response Steps
		Visible Emissions	Weekly	Normal-Abnormal	

Proposed Changes

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

Change 1: The emission description for the four (4) dry bottom, pulverized coal-fired boilers, identified as Boiler No.1, 2, 3 and No.4 have been updated in Section A.2, Sections D.1, D.2, D.3 and D.4. The emission description for the two (2) dry bottom, pulverized coal-fired boilers, identified as Boiler No. 2 and No.4 have been updated in Sections D.2 and D.4. to include the dry sorbent injection system for the control of SO₂ emissions. Two (2) new Sorbent Storage Silos have been added to Section A.2, Section D.8 and Section E.1 of the permit. The electrostatic precipitator in sections D.1, D.2, D.3 and D.4 have been replaced with a baghouse and all the corresponding conditions to the ESP have been removed from the permit. All subsequent numbers in the permit have been renumbered.

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.~~ **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in ~~1994 1993.~~ **The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.** ~~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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in ~~1992 1993.~~ **The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.** ~~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.~~ **Particulate matter emissions are controlled by a**

baghouse. Emissions are exhausted through Stack B. Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a

continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in ~~1994~~ 1993. **The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.** ~~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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in ~~1994~~ 1993. **The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.** ~~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.

- (g) **Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.**

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.~~ **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in ~~1994~~ 1993. **The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.** ~~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.1.6 ~~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.

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

~~After the replacement of the ESP by a baghouse:~~

~~D.1.104 Opacity Readings~~ [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.1.112 SO₂ Monitoring System Downtime~~ [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

D.1.123 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.1.940, and D.1.1044, 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 baghouse~~ 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.1.1142, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ CEM system downtime if a backup CEMs is not used.
-

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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in 1992-1993. **The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.** ~~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.2.6 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.

.....

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

~~After the replacement of the ESP by a baghouse:~~

~~D.2.104~~ Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.2.112~~ SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

~~D.2.123~~ 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.2.940~~, and ~~D.2.1044~~, 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~~ **baghouse** 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.2.1142~~, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ CEM system downtime if a backup CEM is not used.

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.~~ **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in ~~1994~~ 1993. **The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.** ~~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.3.6 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.

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

~~After the replacement of the ESP by a baghouse:~~

D.3.104 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.112 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

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

D.3.123 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.3.910 and D.3.104~~ 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 baghouse~~ 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.3.1142 the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ CEM system downtime if a backup CEM is not used.
-

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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in 1994 1993. **The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.** ~~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.4.6 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.

.....

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

~~After the replacement of the ESP by a baghouse:~~

.....

~~D.4.104 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]~~

.....

~~D.4.112 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]~~

.....

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

~~D.4.123 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.4.910, and D.4.104~~, 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 baghouse** 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.4.114~~2, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ 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 SO₂ CEM system downtime if a backup CEM is not used.

.....

Change 2 A new section - Section D.8 has been added to this permit and new conditions have been added also because of the new sorbent storage silo added to the source.

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.

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

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

D.8.1 PSD Minor Limit and Nonattainment NSR [326 IAC 2-2] [326 IAC 2-1.1-5]

Pursuant to Significant Source Modification No. 043-29143-00004, the Permittee shall comply with the following:

- (a) PM emissions from the sorbent storage silos shall not exceed 3.4 pounds per hour.
- (b) PM_{2.5} emissions from the sorbent storage silos shall not exceed 1.8 pounds per hour.

Compliance with these limits in conjunction with the potential fugitive emissions from vehicular traffic, will ensure that the PM emissions from the sorbent storage silos system are less than 25 tons/yr and PM_{2.5} emissions are less than 10 tons/yr, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable to the 2010 modification.

D.8.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the dry sorbent silo shall not exceed 29.4 pounds per hour when operating at a process weight rate of 24 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

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventative Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan of this permit, is required for these sorbent silos and their control devices.

Compliance Determination Requirements

D.8.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) **Within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after the initial startup of the sorbent silo baghouse, in order to determine compliance with Condition D.8.1, the Permittee shall perform PM testing on one (1) of the two (2) sorbent silo baghouse utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.**
- (b) **Within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after the initial startup of the sorbent silo baghouse, the Permittee shall perform PM10 testing on one (1) of the two (2) sorbent silo baghouse utilizing methods as approved by the Commissioner. This testing shall be performed once to demonstrate compliance with the PM10 limit. Testing shall be conducted in accordance with Section C- Performance Testing.**
- (c) **In order to determine compliance with Condition D.8.1, the Permittee shall perform PM2.5 testing of one (1) of the two (2) sorbent silo baghouse within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.**

D.8.5 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, the baghouse for particulate control shall be in operation and control emissions at all times that trucks are unloading into the dry sorbent injection silo.

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

D.8.6 Visible Emissions Notations

- (a) **Visible emission notations of a sorbent silo baghouse stack exhaust shall be performed once per week during normal daylight operations when loading. A trained employee shall record whether emissions are normal or abnormal.**
- (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, not counting startup or shut down time.**
- (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, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.**

D.8.7 Parametric Monitoring

The Permittee shall record the pressure drop across each baghouse used in conjunction with the sorbent silo, at least once per day when a sorbent silo is being loaded by truck and exhausting to the atmosphere. When for any one reading, the pressure drop across a baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established

during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered deviation from the permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated as specified by the manufacturer.

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

D.8.8 Record Keeping Requirements

- (a) To document compliance with Condition D.8.6 - Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations of the sorbent silo exhaust stacks when loading. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).**
- (b) To document compliance with Condition D.8.7 - Parametric Monitoring, the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the sorbent silo. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

Change 3: Applicable NSPS requirements have been added to Section E.1 of the permit. A separate attachment has been created for the NSPS requirements in this section.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) Two (2) sorbent storage silos, identified as SS-01 and SS-02, each equipped with a baghouse to control particulate matter emissions during loading. Sorbent shall be delivered by enclosed tanker trucks. The sorbent is pneumatically transferred from the truck to the silo through a totally enclosed system. The maximum throughput capacity is 24 tons per hour based on unloading one tanker truck per hour. The sorbent will be pulled from the silo through an enclosed system and injected into the boiler upstream of the baghouse. The injection system equipped with mills to reduce the size of sorbent material prior to injection into the flue gas. The mills to be operated on an as needed basis. The milling operation would be totally enclosed and would not result in any additional emissions.**

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

New Source Performance Standards [326 IAC 12-1] [40 CFR 60]

E.1.1 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the sorbent storage silo, except as otherwise specified in 40 CFR Part 60, Subpart 000.**

- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:
Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue,
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Standard of Performance for Nonmetallic Mineral Processing Plants Requirements [326 IAC 12-1] [40 CFR 60, Subpart 000]

Pursuant to 40 CFR 60 Subpart 000, the Permittee shall comply with the applicable provisions of Standard of Performance for Nonmetallic Mineral Processing Plants which are incorporated by reference as 326 IAC 12 as specified as follows:

- (1) 40 CFR 60.670
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672
- (4) 40 CFR 60.673
- (5) 40 CFR 60.674
- (6) 40 CFR 60.675
- (7) 40 CFR 60.676
- (8) Table 1 to Subpart 000
- (9) Table 2 to Subpart 000
- (10) Table 3 to Subpart 000

Other Changes

Upon further review IDEM, OAQ has made the following changes to the Title V permit T043-7244-00004. (deleted language appears as ~~strikout~~ and the new language **bolded**):

- Change 1: The emission description for the two (2) dry bottom, pulverized coal-fired boilers, identified as Boiler No. 2 and No.4 have been updated in Section E.2, to include the dry sorbent injection system for the control of SO₂ emissions.

SECTION E.2

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.~~ **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in ~~1994~~ 1993. **The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.** ~~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.~~
-
- (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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in ~~1992~~ 1993. **The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.** ~~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.~~
-
- (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. **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in ~~1994~~ 1993. **The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.** ~~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.~~
-
- (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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in ~~1994~~ 1993. **The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.** ~~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.~~

Acid Rain Program

E.2.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

.....

E.2.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

.....

Change 2: Pursuant to 326 IAC 10-4-16, 326 IAC 10-4-1 through 326 IAC 10-4-15 do not apply to any control period in 2009 or thereafter. The 2009 NO_x allowances allocated under 326 IAC 10-4-9 remain in effect for purposes of the Clean Air Interstate Rule (CAIR) NO_x

Ozone Season Trading Program in 326 IAC 24-3. Therefore, Section F, Nitrogen Oxides Budget Trading Program - NO_xBudget Permit for NO_xBudget Units Under 326 IAC 10-4-1(a), has been removed from the permit and left as "Reserved" for future rule applicability.

SECTION F ~~RESERVED 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 (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in 1993. 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 (SO₂) and a continuous opacity monitor (COM). Low-NO_x 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 (SO₂) and a continuous opacity monitor (COM). Low-NO_x 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 (SO₂) and a continuous opacity monitor (COM). Low-NO_x 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
MC 61-53 IGCN 1003

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.~~

Change 3: The emission description for the two (2) dry bottom, pulverized coal-fired boilers, identified as Boiler No. 2 and No.4 have been updated in Section G to include the dry sorbent injection system for the control of SO₂ emissions. The conditions in the section have been updated.

SECTION G Clean Air Interstate (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs – CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 1008

CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a) and 326 IAC 24-3-1(a)

- (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.~~ **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack A.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 1 in ~~1994~~ **1993**. ~~The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.~~ **The ESP on Boiler No.1 was replaced with a new baghouse in December 2007.** ~~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.~~
-
- (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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack A has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 2 in ~~1992~~ **1993**. ~~The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.~~ **The ESP on Boiler No.2 was replaced with a new baghouse in December 2007.** ~~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.~~
-
- (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. **Particulate matter emissions are controlled by a baghouse. Emissions are exhausted through Stack B.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 3 in ~~1994~~ **1993**. ~~The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.~~ **The ESP on Boiler No.3 was replaced with a new baghouse in May 2008.** ~~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.~~
-
- (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.~~ **Particulate matter emissions are controlled by a baghouse. SO₂ emissions will be controlled by dry sorbent injection system scheduled to be in service by January 1, 2011. Sorbent will be injected upstream of the baghouse.** Stack B has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM). Low-NO_x burners were installed on Boiler No. 4 in ~~1994~~ **1993**. ~~The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.~~ **The ESP on Boiler No.4 was replaced with a new baghouse in April 2008.** ~~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.~~

G.2 Standard Permit Requirements [326 IAC 24-1-4(a)] [326 IAC 24-2-4(a)] [326 IAC 24-3-4(a)]
[40 CFR 97.106(a)] [40 CFR 97.206(a)] [40 CFR 97.306(a)]

- (a) The owners and operators of the **each** CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units shall operate each **source and** unit in compliance with this CAIR permit.
- (b) The CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units subject to this CAIR permit are, Boiler No. 1, Boiler No. 2, Boiler No. 3, and Boiler No. 4.

G.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-1-4(b)]
[326 IAC 24-2-4(b)] [326 IAC 24-3-4(b)] [40 CFR 97.106(b)] [40 CFR 97.206(b)]
[40 CFR 97.306(b)]

- (a) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall comply with the **applicable** monitoring, reporting, and record keeping requirements of 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.

* * *

G.4.1 Nitrogen Oxides Emission Requirements [326 IAC 24-1-4(c)] [40 CFR 97.106(c)]

- (a) As of the allowance transfer deadline **for a control period**, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 326 IAC 24-1-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 326 IAC 24-1-11.
- ~~(b) A CAIR NO_x unit shall be subject to the requirements under (a) above and 326 IAC 24-1-4(c)(1) starting on January 1, 2008.~~
- (b) A CAIR NO_x unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.**
- (c) A CAIR NO_x allowance shall not be deducted for compliance with the requirements under ~~(a) above and 326 IAC 24-1-4(c)(1)~~, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.

* * *

G.4.2 Sulfur Dioxide Emission Requirements [326 IAC 24-2-4(c)] [40 CFR 97.206(c)]

- (a) As of the allowance transfer deadline **for a control period**, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions ~~under~~ for the control period under 326 IAC 24-2-8(j) and 326 IAC 24-2-8(k) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 326 IAC 24-2-10.
- ~~(b) A CAIR SO₂ unit shall be subject to the requirements under (a) above and 326 IAC 24-2-4(c)(1) starting on January 1, 2009.~~
- (b) A CAIR SO₂ unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.**
- (c) A CAIR SO₂ allowance shall not be deducted for compliance with the requirements under ~~(a) above and 326 IAC 24-2-4(c)(1)~~, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.

* * *

G.4.3 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)] [40 CFR 97.306(c)]

- (a) As of the allowance transfer deadline **for a control period**, the owners and operators of the each CAIR NO_x ozone season source and each CAIR NO_x ozone season unit at the source shall hold, in the source's compliance account, CAIR NO_x ozone season allowances available for compliance deductions for the control period under 326 IAC 24-3-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x ozone season units at the source, as determined in accordance with 326 IAC 24-3-11.

- ~~(b) A CAIR NO_x unit shall be subject to the requirements under (a) above and 326 IAC 24-3-~~

~~4(c)(1) starting on May 1, 2008.~~

- (b) **A CAIR NO_x ozone season unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.**
- (c) A CAIR NO_x ozone season allowance shall not be deducted for compliance with the requirements under ~~(a) above and~~ 326 IAC 24-3-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x ozone season allowance was allocated.
- (d) CAIR NO_x ozone season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x ozone season allowance tracking system accounts in accordance with 326 IAC 24-3-9, 326 IAC 24-3-10, and 326 IAC 24-3-12.
- (e) A CAIR NO_x **for a control period** allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_{B_xB} ozone season trading program. No provision of the CAIR NO_x ozone season trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-3-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x **for a control period** allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-3-8, 326 IAC 24-3-9, 326 IAC 24-3-10, or 326 IAC 24-3-12, every allocation, transfer, or deduction of a CAIR NO_x ozone season allowance to or from a CAIR NO_x ozone season source's compliance account is incorporated automatically in this CAIR permit.

G.5 Excess Emissions Requirements [326 IAC 24-1-4(d)] [326 IAC 24-2-4(d)] [326 IAC 24-3-4(d)]
[40 CFR 97.106(d)] [40 CFR 97.206(d)] [40 CFR 97.306(d)]

- (a) The owners and operators of a CAIR NO_x source and each CAIR NO_x unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation shall do the following:
 - (a1) Surrender the CAIR NO_x allowances required for deduction under 326 IAC 24-1-9(j)(4).
 - (b2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-1-4, the Clean Air Act (CAA), and applicable state law.
- (b) The owners and operators of a CAIR SO₂ source and each CAIR SO₂ unit that emits sulfur dioxide during any control period in excess of the CAIR SO_{B₂B} emissions limitation shall do the following:
 - (a1) Surrender the CAIR SO₂ allowances required for deduction under 326 IAC 24-2-8(k)(4).
 - (b2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-2-4, the Clean Air Act (CAA), and applicable state law.
- (c) The owners and operators of a CAIR NO_x ozone season source and each CAIR NO_x ozone season unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x ozone season emissions limitation shall do the following:
 - (a1) Surrender the CAIR NO_x ozone season allowances required for deduction under 326 IAC 24-3-9(j)(4).

- (b2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-3-4, the Clean Air Act (CAA), and applicable state law.

G.6 Record Keeping Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[326 IAC 2-7-5(3)] [40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall keep 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 from the date the document was created:

- (a) The certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), **and** 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation. The certificate and documents shall be retained on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond such five (5) year period until such documents are superseded because of the submission of a new account certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), **and** 326 IAC 24-3-6(h) changing the CAIR designated representative.

* * *

G.7 Reporting Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

* * *

- (c) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to IDEM, OAQ, the ~~CAIR designated representative shall submit required~~ information **shall be submitted** to:

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

- (d) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to U.S. EPA, the ~~CAIR designated representative shall submit required~~ information **shall be submitted** to:

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

G.8 Liability [326 IAC 24-1-4(f)] [326 IAC 24-2-4(f)] [326 IAC 24-3-4(f)] [40 CFR 97.106(f)]
[40 CFR 97.206(f)] [40 CFR 97.306(f)]

The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall be liable as follows:

- (a) Each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall meet the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and

CAIR NOx ozone season trading program, **respectively**.

* * *

**G.10 CAIR Designated Representative and Alternate CAIR Designated Representative
[326 IAC 24-1-6] [326 IAC 24-2-6] [326 IAC 24-3-6] [40 CFR 97, Subpart BB] [40 CFR 97,
Subpart BBB] [40 CFR 97, Subpart BBBB]**

Pursuant to 326 IAC 24-1-6, 326 IAC 24-2-6, and 326 IAC 24-3-6:

- (a) Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), each CAIR NOx source, CAIR SO₂ source, and CAIR NOx ozone season source, including all CAIR NOx units, CAIR SO₂ units, and CAIR NOx ozone season units at the source, shall have one (1) and only one (1) CAIR designated representative, with regard to all matters under the CAIR NOx annual trading program, CAIR SO₂ trading program, and CAIR NOx ozone season trading program concerning the source or any CAIR NOx unit, CAIR SO₂ unit, and CAIR NOx ozone season unit at the source.
- (b) The provisions of 326 IAC 24-1-6(f), 326 IAC 24-2-6(f), and 326 IAC 24-3-6(f) shall apply where the owners or operators of a CAIR NOx source, CAIR SO₂ source, and CAIR NOx ozone season source choose to designate an alternate CAIR designated representative.

Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), whenever the term "CAIR designated representative" is used, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 043-29143-00004 and Significant Permit Modification No. 043-29145-00004. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Appendix A: Emissions Calculations
Emission Summary

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Uncontrolled Potential to Emit

	PM (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Sorbent Silo (SS-01) and (SS-02)	18	11.5	11.5	0	0	0	0	0
Loading additional material into trucks at ash silo F1	0.31	0.14	0.03	0	0	0	0	0
Increased Number of pile disturbances, wind erosion F2	0.25	0.12	0.02	0	0	0	0	0
Hauling additional material into landfill F3	6.64	1.69	1.69	0	0	0	0	0
Increased hours of vehicle traffic on landfill F4	0.37	0.16	0.16	0	0	0	0	0
Truck hauling paved roads F5	2.03	0.39	0.06	0	0	0	0	0
Unloading additional material into landfill	0.31	0.14	0.03	0	0	0	0	0
Loading Silo weigh Bins	0.0195	0.091	0.014	0	0	0	0	0
Total Emissions	27.9	14.2	13.5	0.0	0.0	0.0	0.0	Single HAP <10 Combined HAPs < 25

Appendix A: Emissions Calculations
Emission Summary

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Limited Potential to Emit

	PM (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Sorbent Silo (SS-01) and (SS-02)	14.89	11.5	7.88	0	0	0	0	0
Loading additional material into trucks at ash silo F1	0.31	0.14	0.03	0	0	0	0	0
Increased Number of pile disturbances, wind erosion F2	0.25	0.12	0.02	0	0	0	0	0
Hauling additional material into landfill F3	6.64	1.69	1.69	0	0	0	0	0
Increased hours of vehicle traffic on landfill F4	0.37	0.16	0.16	0	0	0	0	0
Truck hauling paved roads F5	2.03	0.39	0.06	0	0	0	0	0
Unloading additional material into landfill	0.31	0.14	0.03	0	0	0	0	0
Loading Silo weigh Bins	0.0195	0.091	0.014	0	0	0	0	0
Total Emissions	24.8	14.2	9.88	0.0	0.0	0.0	0.0	Single HAP <10 Combined HAPs < 25

Appendix A: Emissions Calculations

Emission Summary

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Controlled Potential to Emit

	PM (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	HAPs (tons/yr)
Emission Unit								
Sorbent Silo (SS-01) and (SS-02)	0.92	0.92	0.92	0	0	0	0	0
Loading additional material into trucks at ash silo F1	0.0055	0.0026	0.0004	0	0	0	0	0
Increased Number of pile disturbances, wind erosion F2	0.1	0.05	0.01	0	0	0	0	0
Hauling additional material into landfill F3	3.32	0.85	0.85	0	0	0	0	0
Increased hours of vehicle traffic on landfill F4	0.18	0.08	0.08	0	0	0	0	0
Truck hauling paved roads F5	1.01	0.2	0.03	0	0	0	0	0
Unloading additional material into landfill	0.0055	0.0026	0.0004	0	0	0	0	0
Loading Silo weigh Bins	0.0002	0.0001	0	0	0	0	0	0
Total Emissions	5.5	2.1	1.89	0.0	0.0	0.0	0.0	Single HAP <10 Combined HAPs < 25

Emission Summary
Emission units SS-01 and SS-02

Source Name: Duke Energy Indiana - Gallagher Generating Station

Source Location: 30 Jackson Street, New Albany, IN 47150

Permit Number: SPM043-29145-00004

Permit Reviewer: Josiah Balogun

Date: 8-Apr-2010

Description	Throughput tons/yr ⁽¹⁾	Throughput tons/hr ⁽¹⁾	Pollutant	Uncontrolled	controlled	Flow (acfm)	Hour of Operation	Uncontrolled	Uncontrolled	Controlled lbs/hr	Controlled
				lbs/ton ⁽²⁾	gr/dscf ⁽³⁾			lbs/hr ⁽⁴⁾	tons/yr ⁽⁵⁾	⁽⁶⁾	tons/yr ⁽⁷⁾
Pneumatically loading Silo	50000	24.00	PM	0.72	0.03	800	8760	17.28	18.00	0.210	0.92
			PM10	0.46				11.04	11.50	0.210	0.92
										Total tons/yr	1.84

(1) Annual throughput is based on using unmilled trona, with an injection rate of 13,500 #/hr and 40% capacity factor. The hourly capacity is based on unloading one truck per hour.

(2) AP-42 Section 11.12.2 uncontrolled emissions factor for pneumatic unloading of cement to a silo.

(3) Controlled PM/PM10/PM2.5 emissions rate based on engineering estimate. PM2.5 was conservatively estimated to be equivalent to PM-10

(4) Uncontrolled PM emission (lbs/hr) = PM10 Emissions Factor (lbs/ton) * Throughput (tons/hr)

(5) Uncontrolled PM emission (tons/yr) = Emissions Factor (lbs/ton) * Throughput (tons/yr) / 2000 lbs/ton

(6) Controlled PM emissions (lbs/hr) = Grain Loading (gr/dscf) * Flow (acfm) * 60 min/hr / 7000 grains/lb

(7) Controlled PM emissions (tons/year) = Grain Loading (gr/dscf) * Flow (acfm) * 60 min/hr * 8760 hours/yr / 7000 grains/lbs/ 2000 lbs/ton

Particulate Emissions Limitation 326 IAC 6-3-2(e)

Description	Max process rate tons/hr	Process Weight rate limit (lbs/hr)	Proposed Limit (gr/dscf)	Controlled lbs/hr
Bin Vent Filter	24.00	29.4	0.01	0.210

Process weight rate limit based on following calculation:

$$E = 4.10 * P^{0.67}$$

Where E = Emission Rate in pounds per hour

P = the process weight rate in tons per hour

TABLE 11.12-2 (ENGLISH UNITS)
 EMISSION FACTORS FOR CONCRETE BATCHING *

Source (SCC)	Uncontrolled				Controlled			
	Total PM	Emission Factor Rating	Total PM ₁₀	Emission Factor Rating	Total PM	Emission Factor Rating	Total PM ₁₀	Emission Factor Rating
Aggregate transfer ^b (3-05-011-04,-21,23)	0.0069	D	0.0033	D	ND		ND	
Sand transfer ^b (3-05-011-05,22,24)	0.0021	D	0.00099	D	ND		ND	
Cement unloading to elevated storage silo (pneumatic) ^c (3-05-011-07)	0.72	E	0.46	E	0.00099	D	0.00034	D
Cement supplement unloading to elevated storage silo (pneumatic) ^c (3-05-011-17)	3.14	E	1.10	E	0.0089	D	0.0049	E
Weigh hopper loading ^e (3-05-011-08)	0.0051	D	0.0024	D	ND		ND	
Mixer loading (central mix) ^f (3-05-011-09)	0.544 or Eqn. 11.12-1	B	0.134 or Eqn. 11.12-1	B	0.0173 or Eqn. 11.12-1	B	0.0048 or Eqn. 11.12-1	B
Truck loading (truck mix) ^g (3-05-011-10)	0.995	B	0.278	B	0.0568 or Eqn. 11.12-1	B	0.0160 or Eqn. 11.12-1	B
Vehicle traffic (paved roads)	See AP-42 Section 13.2.1, Paved Roads							
Vehicle traffic (unpaved roads)	See AP-42 Section 13.2.2, Unpaved Roads							
Wind erosion from aggregate and sand storage piles	See AP-42 Section 13.2.5, Industrial Wind Erosion							

**Emission Summary
Material Load - Unload F1**

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Moisture Content of Flyash***	m	20	%
Mean Wind Speed **	u	8.3	mi/hr
k (particle size multiplier)	k	0.053	dimensionless (for PM ₂₅)
k (particle size multiplier)	k	0.35	dimensionless (for PM ₁₀)
k (particle size multiplier)	k	0.75	dimensionless (for PM ₃₀)

$$E = k(0.0032) [(U/5)^{1.3} / (m/2)^{1.4}]^*$$

Where:

E = Fugitive dust emission factor
M = Material loading/unloading (tons/year)
k = Particle size multiplier (dimensionless)
u = Mean wind speed (mi/hr)
m = Moisture content (%)

	Controlled	Uncontrolled	Units
PM _{2.5} emission Factor =	1.30E-05	8.65E-04	lbs/ton
PM ₁₀ emission Factor =	8.62E-05	5.71E-03	lbs/ton
PM emission Factor =	1.85E-04	1.22E-02	lbs/ton

	SORBENT****	
	Controlled	Uncontrolled
PM _{2.5} Emissions (tons/year) =	0.0004	0.0259
PM ₁₀ Emissions (tons/year) =	0.0026	0.1428
PM ₃₀ Emissions (tons/year) =	0.0055	0.3060

Notes:

* Emission factor based on AP-42 Chapter 13.2.4, January 1995 "Aggregate Handling and Storage Piles", Equation #1

** Mean Wind Speed from Louisville, KY as reported in the Local Climatological Data.

*** Moisture content provided by Duke Energy and represents conditioned flyash (i.e., flyash combined with water to provide a damp material acceptable for transporting in a truck).

**** Add 20% weight for water

Emission Summary
Wind Erosion F2
Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Flyash - Wind Erosion PTE (tons/yr)

# of Pile Disturbances/hour (1)	Active Pile Surface Area 10% active (m ²) (2)	Fastest Mile of Reference for Disturbance (mph)	Particle Size Multiplier (k)	(u*)Friction Velocity fastest for disturbance mph * 0.053 (m/s)	(u ¹)Threshold Friction Velocity AP-42 Table 13.2.5-2 (m/s)	P Threshold Friction Velocity (grams/ cubic meter)	Anticipated Control Efficiency (3)	Pollutant	Fugitive Emission Rate (tons/year) (3)(4) and (5)	Controlled Fugitive Emission Rate (tons/year) (3)(4)and (5)
1,714	25,292.9	19.7	1	1.04	1.02	0.5232	60.00%	PM	0.25	0.10
			0.5					PM10	0.12	0.05
			0.075					PM2.5	0.02	0.01

Notes:

(1) Number of pile disturbances was based on number of truck trips need to haul the additional spent sorbent plus the 20% water.

(2) Pile surface area based on areal photography provided by Duke Energy. Conservative estimate of a pile that is 1650 feet x 1650 feet.
 $2,722.500 \text{ ft}^2 * 0.09290304 \text{ m}^2/\text{ft}^2 * 0.01 = 25292.85264 \text{ m}^2$, Assumes 10% of the pile is active at one time.

(3) PM emission equation from AP-42, Chapter 13.2.5-3, "Industrial Wind Erosion", 4th Edition, Equations 2 and 3.
 Sample PM Fugitive Emission Calculation (tons/yr): $(k)(N)(A)[58(u^*-u_t^*)^2 + 25(u^*-u_t^*)]/453.59 * (\% \text{ time } WS > ut)$

Where:

k = particle size multiplier, N = number of disturbances, A = storage pile surface area (m²), u* = friction velocity (m/s), u_t* = threshold friction velocity (m/s)

Frictional Velocity = $58 * (0.83 - 0.62)^2 + 25 * (0.83 - 0.62)$

u* = 19.7 mph is the highest wind velocity multiplied by 0.053.

u¹ = 0.62 from AP-42 Table 13.2.5-2

(4) Fugitive emissions are assumed to be 1% of the total fugitive emission that was calculated, due to the probability of the wind exceeding 19.7 miles/hour (fastest miles of reference for disturbance) being 1%.

(5) Anticipated control efficiency based on fugitive dust control techniques (i.e., wet suppression) to minimize fugitive airborne dust formation.

Table 13.2.5-2 (Metric Units). THRESHOLD FRICTION VELOCITIES

Material	Threshold Friction Velocity (m/s)	Roughness Height (cm)	Threshold Wind Velocity At 10 m (m/s)	
			z _o = Act	z _o = 0.5 cm
Overburden ^a	1.02	0.3	21	19
Scoria (roadbed material) ^a	1.33	0.3	27	25
Ground coal (surrounding coal pile) ^a	0.55	0.01	16	10
Unrusted coal pile ^a	1.12	0.3	23	21
Scraper tracks on coal pile ^{a,b}	0.62	0.06	15	12
Fine coal dust on concrete pad ^c	0.54	0.2	11	10

^a Western surface coal mine. Reference 2.

^b Lightly crusted.

^c Eastern power plant. Reference 3.

Emission Summary

Unpaved road Traffic to Landfill F3

Source Name: Duke Energy Indiana - Gallagher Generating Station

Page 8 of 11 TSD App A

Source Location: 30 Jackson Street, New Albany, IN 47150

Permit Number: SPM043-29145-00004

Permit Reviewer: Josiah Balogun

Date: 8-Apr-2010

Pollutant	Mean Vehicle Weight (W) (tons)	Vehicle Traffic ⁽¹⁾		Round Trip Distance (miles)	Emission Factor (lbs /VMT) ⁽²⁾	Uncontrolled		Controlled	
		trips/yr	trips/hr			lbs/hr	tons/yr	lbs/hr	tons/yr
PM	60.00	1,714	2	1.21	9.93	15.5	6.64	7.8	3.32
PM10					2.53	4.0	1.69	2.0	0.85
PM2.5					2.53	4.0	1.69	2.0	0.85

Constants for Use in Emission Factor Calculation

Sent Sorbet Hauled to Landfill****	60,000
Silt content of Road Material (s) ⁽³⁾	4.8
Surface Moisture Content of Road Material (M) ⁽³⁾	4.5
Days with at least 0.01 inches of precipitation (p) ⁽⁴⁾	130
Particle Size Multiplier (k) dimensionless (for PM)	4.90
Particle Size Multiplier (k) dimensionless (for PM ₁₀)	1.50
Rainfall Correction Factor (R)	0.64
Constant (a) (for PM ₁₀)	0.90
Constant (a) (for PM)	0.70
Constant (b)	0.45
Average weight of truck	50.50
Tons/truck	35.00
Control Efficiency from watering roads (5)	0.50

E (total emissions) = e*VMT*R

VMT = Vehicle Miles Traveled (# of vehicles * miles traveled)

Where:

$$e = \text{emission factor in lbs/VMT} = k * ((s/12)^a * (W/3)^b)$$

Pollutant	Emissions Factor
PM	9.93 lbs/VMT
PM10	2.53 lbs/VMT
PM2.5	2.53 lbs/VMT

$$R = (365-p)/365 = 0.64$$

Notes:

- (1) Vehicle traffic based on hauling an additional 60,000 tons (50,000 tons spent sorbent + 20% moisture) to the landfill.
- (2) Emission factor calculation based on AP-42, Chapter 13.2.2, "Unpaved Roads", December 2003, Equation 1a (Unpaved roads at industrial sites).
- (3) Surface moisture content and silt content of coal obtained from Table 13.2.4-1
- (4) Days with at least 0.01 inches of precipitation extrapolated from Figure 13.2.2-1 in AP-42, Chapter 13.2.2, December 2003.
- (5) Control efficiency due to use of watering trucks determined by calculating a moisture ratio (moisture content controlled/moisture content uncontrolled) and determined the control efficiency based on Figure 13.2.2-2 of AP-42, Chapter 13.2.2, 12/03.

**** Add 20% weight for water

**Emission Summary
Traffic on landfill F4**

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Pollutant	Mean Vehicle Weight (W) tons ⁽⁶⁾	Vehicle Traffic ⁽¹⁾			Emission Factor (lbs /VMT) ⁽²⁾	Uncontrolled		Controlled	
		miles/yr	miles/day	miles/hr		lbs/hr	tons/yr	lbs/hr	tons/yr
PM	5.55	71	1	0.17	20.68	1.8	0.37	0.9	0.18
PM10					8.82	0.8	0.16	0.4	0.08
PM2.5					8.82	0.8	0.16	0.4	0.08

Constants for Use in Emission Factor Calculation

Silt content of Road Material (s) ⁽³⁾	63.2
Surface Moisture Content of Road Material (M) ⁽³⁾	4.5
Days with at least 0.01 inches of precipitation (p) ⁽⁴⁾	130
Particle Size Multiplier (k) dimensionless (for PM)	4.90
Particle Size Multiplier (k) dimensionless (for PM ₃₀)	1.50
Rainfall Correction Factor (R)	0.64
Constant (a) (for PM ₁₀)	0.90
Constant (a) (for PM)	0.70
Constant (b)	0.45
Control Efficiency from watering roads (5)	0.50

E (total emissions) = e*VMT*R

VMT = Vehicle Miles Traveled (# of vehicles * miles traveled)

Where:

e = emission factor in lbs/VMT = $k*((s/12)^a*(W/3)^b)$

Pollutant	Emission Factor ⁽²⁾
PM	20.68 lbs/VMT
PM10	8.82 lbs/VMT
PM2.5	8.82 lbs/VMT

$$R = (365-p)/365 = 0.64$$

Notes:

- (1) Vehicle traffic based on 416 operating hours per year and average dozer speed of 0.17 miles/hr .
- (2) Emission factor calculation based on AP-42, Chapter 13.2.2, "Unpaved Roads", December 2003, Equation 1a (Unpaved roads at industrial sites).
- (3) Surface moisture content provided by Duke Energy and silt content of flyash estimated at 63.2% based on "Flyash dynamics in soil-water systems," Sharma, et. al, 1989, **Critical**
- (4) Days with at least 0.01 inches of precipitation extrapolated from Figure 13.2.2-1 in AP-42, Chapter 13.2.2, December 20 Uncontrolled Potential to Emit
- (5) Control efficiency due to use of watering trucks determined by calculating a moisture ratio (moisture content controlled/moisture content uncontrolled) and determined the control efficiency based on Figure 13.2.2-2 of AP-42, Chapter 13.2.2, 12/03.
- (6) Weight of compactor from Caterpillar vibratory compactor specification sheet for CP-323C version.

Emission Summary
Paved Road Truck delivery F5
Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Pollutant	lbs/VMT	Vehicle Traffic ⁽¹⁾			Round Trip Distance (miles)	Uncontrolled			Controlled		
		trips	trips/day	trips/hr		lbs/hr	lbs/day	tons/yr	lbs/hr	lbs/day	tons/yr
PM2.5	0.084	2,083	13	1.6	1.00	0.09	0.74	0.06	0.05	0.37	0.03
PM10	0.565					0.61	4.9	0.4	0.30	2.46	0.20
PM30	2.897					3.11	25.3	2.0	1.56	12.64	1.01

Constants for Use in Emission Factor Calculation

Control Efficiency	50.00%
k factor PM2.5	0.0024
k factor PM10	0.016
k factor PM30	0.082
Road surface silt content	3.3
C emissions factor for PM2.5	0.00036
C emissions factor for PM10	0.00047
C emissions factor for PM30	0.00047
W average weight of truck	26
Max Throughput	50000
Tons per truck	24
p, mean # days with rainfall > 0.01 inches	120

$$e = \text{emission factor in lbs/VMT} = (k \times (sL/2)^{0.65} \times (W/3)^{1.5} - C) \times ((365-p)/365)$$

Calculated Emissions Factor (lbs/VMT)

PM2.5	0.084	lbs/VMT
PM10	0.565	lbs/VMT
PM30	2.897	lbs/VMT

$$R = (365-p)/365 = 0.67$$

Notes:

- (1) Vehicle traffic based on hauling an additional 50,000 tons of material to the silo and 24 tons of material per truck.
- (2) Emission factor calculation based on AP-42, Chapter 13.2.1.
- (3) Surface moisture content and silt content of coal obtained from Table 13.2.1-4
- (4) Days with at least 0.01 inches of precipitation extrapolated from Figure 13.2.2-1 in AP-42, Chapter 13.2.2, December 2003.
- (5) Control efficiency due to use of watering trucks determined by calculating a moisture ratio (moisture content controlled/moisture content uncontrolled) and determined the control efficiency based on Figure 13.2.2-2 of AP-42, Chapter 13.2.2, 12/03.

Emission Summary

Material Load - Loading Silo Weigh Bins

Source Name: Duke Energy Indiana - Gallagher Generating Station
Source Location: 30 Jackson Street, New Albany, IN 47150
Permit Number: SPM043-29145-00004
Permit Reviewer: Josiah Balogun
Date: 8-Apr-2010

Filter control efficiency	%CE	99	%
Mean Wind Speed **	u	1.0	mi/hr, enclosed system
k (particle size multiplier)	k	0.053	dimensionless (for PM _{2.5})
k (particle size multiplier)	k	0.35	dimensionless (for PM ₁₀)
k (particle size multiplier)	k	0.75	dimensionless (for PM ₃₀)

$$E = k(0.0032) [(U/5)^{1.3} / (m/2)^{1.4}]^*$$

Where:

E = Fugitive dust emission factor
M = Material loading/unloading (tons/year)
k = Particle size multiplier (dimensionless)
u = Mean wind speed (mi/hr)
m = Moisture content (%)

	Controlled	Uncontrolled	Units
PM _{2.5} emission Factor =	5.52E-07	5.52E-05	lbs/ton
PM ₁₀ emission Factor =	3.65E-06	3.65E-04	lbs/ton
PM emission Factor =	7.82E-06	7.82E-04	lbs/ton

SORBENT**** 50000

	Controlled	Uncontrolled
PM _{2.5} Emissions (tons/year) =	0.0000	0.0014
PM ₁₀ Emissions (tons/year) =	0.0001	0.0091
PM ₃₀ Emissions (tons/year) =	0.0002	0.0195

Notes:

* Emission factor based on AP-42 Chapter 13.2.4, January 1995 "Aggregate Handling and Storage Piles", Equation #1

** Loading in enclosed system.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Patrick Coughlin
Duke Energy Indiana, Inc. Gallagher Gen. Station
1000 E. Main St.
Plainfield IN 46168

DATE: July 7, 2010

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Significant Permit Modification
043-29145-00004

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Randy Clark GM II Reg. Fossil Stns Duke Energy Indiana, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

July 7, 2010

TO: New Albany Floyd Co. Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Duke Energy Indiana, Inc.--Gallagher Gen. Station
Permit Number: 043-29145-00004

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	BMILLER 7/7/2010 Duke Energy Indiana, Inc. - Gallagher Generating Station 043-29145-00004 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Patrick Coughlin Duke Energy Indiana, Inc. - Gallagher Generating S 1000 East Mian Street Plainfield IN 46168 (Source CAATS) <i>(Via Confirmed Delivery)</i>										
2		Randy Clark GM II- Reg Fossil Stns Duke Energy Indiana, Inc. - Gallagher Generating S 1000 East Mian Street Plainfield IN 47150 (RO CAATS)										
3		Mr. Robert Bottom Paddlewheel Alliance P.O. Box 35531 Louisville KY 40232-5531 (Affected Party)										
4		Floyd County Commissioners 311-319 West 1st St, Rm 214 New Albany IN 47150 (Local Official)										
5		New Albany City Council and Mayors Office City County Building #316 New Albany IN 47150 (Local Official)										
6		New Albany Floyd Co Public Library 180 W Spring St New Albany IN 47150-3692 (Library)										
7		Floyd County Health Department 1917 Bono Rd New Albany IN 47150-4607 (Health Department)										
8		Mr. Arthur L. Williams Louisville Kentucky Air Pollution Control District 850 Barrett Avenue Louisville KY 40204-1745 (Affected State)										
9		Ms. Sue Green 1985 Kepley Road Georgetown IN 47122 (Affected Party)										
10		Ms. Michelle Stites 850 Barret Ave. Louisville KY 40204 (Affected Party)										
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--