INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: July 18, 2013

RE: Indianapolis Power and Light – Petersburg Generating Station / 125-30045-00002

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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 an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

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

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

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

Enclosures
FNTVOP.dot 6/13/2013

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Indianapolis Power & Light Company - Petersburg Generating Station
6925 N. State Road 57
Petersburg, Indiana 47567

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

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

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

Operation Permit No.: 125-30045-00002	
Issued by: Tripurari Sinha Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: July 18, 2013 Expiration Date: July 18, 2018

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 Conditions [326 IAC 2-1.1-9.5]
B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]
B.5 Severability [326 IAC 2-7-5(5)]
B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
B.11 Emergency Provisions [326 IAC 2-7-16]
B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
B.15 Reserved
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 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]
B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]
B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
B.21 Source Modification Requirement [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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]
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 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)]
C.14 Reserved
C.15 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.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
C.18 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
C.19 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.20 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.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

Stratospheric Ozone Protection
C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Ambient Monitoring Requirements [326 IAC 7-3]
C.24 Ambient Monitoring [326 IAC 7-3]

D.1. EMISSIONS UNIT OPERATION CONDITIONS - Boilers 1 and 2

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 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]
D.1.3 Sulfur Dioxide (SO2) Emission Limitations [326 IAC 7-1.1]

Compliance Determination Requirements
D.1.4 Particulate Control [40 CFR 64]
D.1.5 Sulfur Dioxide Control
D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
D.1.7 Continuous Emission Monitoring [326 IAC 3-5] [40 CFR Part 75]
D.1.8 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]
D.1.9 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.1.10 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]
D.1.11 Opacity Readings - Response Steps [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.1.12 SO_2 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.1.13 Record Keeping Requirements

D.1.14 Reporting Requirements

D.2. EMISSIONS UNIT OPERATION CONDITIONS - Boilers 3 and 4

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart D]
D.2.3 Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]
D.2.4 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]
D.2.5 Sulfur Dioxide (SO_2) Emission Limitations [326 IAC 7-1.1]

Compliance Determination Requirements
D.2.6 Particulate Control [40 CFR 64]
D.2.7 Sulfur Dioxide Control
D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
D.2.9 Fuel Sampling and Analysis
D.2.10 Continuous Emission Monitoring [326 IAC 3-5][40 CFR Part 75]
D.2.11 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]
D.2.12 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.2.13 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]
D.2.14 SO_2 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.2.15 Record Keeping Requirements
D.2.16 Reporting Requirements

D.3. EMISSIONS UNIT OPERATION CONDITIONS - Coal Handling Facilities

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Compliance Determination Requirements
D.3.2 Particulate Control [326 IAC 2-7-6(6)]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.3.3 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.3.4 Record Keeping Requirements

D.4. EMISSIONS UNIT OPERATION CONDITIONS - Limestone/Fly Ash/Gypsum Handling Facilities

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.4.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
D.4.2 New Source Performance Standard (NSPS): Nonmetallic Mineral Processing Plants [326 IAC 12] [40 CFR 60, Subpart OOO]
D.4.3 PSD Minor Limits [326 IAC 2-2]
D.4.4 Particulate [326 IAC 6-3-2]

Compliance Determination Requirements
D.4.5 NSPS Compliance Provisions [326 IAC 12] [40 CFR 60, Subpart OOO]
D.4.6 Particulate Control [326 IAC 2-7-6(6)]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.4.7 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.4.8 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.4.9 Record Keeping Requirements

D.5. EMISSIONS UNIT OPERATION CONDITIONS - Insignificant Activities

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

D.6. EMISSIONS UNIT OPERATION CONDITIONS - Fly Ash Loadout Operations

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.6.1 PSD Minor Limits [326 IAC 2 2]

Compliance Determination Requirements
D.6.2 PM and PM_{10} Control [40 CFR 64]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.6.3 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]
D.6.4 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.6.5 Record Keeping Requirements

D.7. EMISSIONS UNIT OPERATION CONDITIONS - Cooling Towers

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.7.1 PSD Minor Limit [326 IAC 2-2]

Compliance Determination Requirements
D.7.2 Particulate Control [326 IAC 2-7-6(6)]

D.8 EMISSIONS UNIT OPERATION CONDITIONS - NESHAP ZZZZ.

D.8.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]
D.8.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

D.9. EMISSIONS UNIT OPERATION CONDITIONS - Activated Carbon Injection System

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.9.1 PSD Minor Limit [326 IAC 2-2]
D.9.2 Particulate [326 IAC 6-3-2]

Compliance Determination Requirements
D.9.3 Particulate Control [326 IAC 2-7-6(6)]
D.9.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.9.5 Record Keeping Requirements

SECTION E ACID RAIN PROGRAM CONDITIONS

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

Section G Clean Air Interstate Rule (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)]
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]

Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report

Attachment A: Acid Rain Permit
Attachment B: Fugitive Dust Control Plan
Attachment C: NSPS 40 CFR Part 60, Subpart D
Attachment D: NSPS 40 CFR Part 60, Subpart OOO
Attachment E: NESHAP 40 CFR 63, Subpart ZZZZ

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

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

Source Address:	6925 N. State Road 57, Petersburg, Indiana 47567
General Source Phone Number:	(812) 354-8801
SIC Code:	4911
County Location:	Pike
Source Location Status:	Attainment for $PM_{2.5}$ standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD 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) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, and low NO_X burner (installed in 1995) for NO_X reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator, FGD scrubber (installed in 1996), and selective catalytic reduction (installed in 2004) as control, and low NO_X burner for NO_X reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, and low NO_X burner (installed in 2001) for NO_X reduction, and exhausts to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(e) One (1) emergency diesel internal combustion engine/generator, identified as PB-2, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB2-1.

(f) One (1) emergency diesel internal combustion engine/generator, identified as PB-3, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB3-1.

(g) One (1) emergency diesel internal combustion engine/generator, identified as PB-4, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB4-1.

(h) Coal handling facility, identified as PB-45 "System A", constructed in 1963, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.

(2) Move bulk materials - haul trucks, loaders, bulldozers, other heavy mobile equipment, etc.

(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.

(4) Enclosures at drop points.

(5) Coal crushing with enclosures.

(6) Free fall from overhead conveyor to outside pile.

(7) Outside storage pile.

(8) Reclaiming and loading.

(9) Truck hauling on paved and unpaved roads.

(i) Coal and limestone handling facility, identified as PB-48 “System B,” constructed in 1973, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.

(2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.

(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.

(4) Enclosures at drop points.

(5) Coal crushing with enclosures.

(6) Limestone wet ball mill.

(7) Outside storage pile.

(8) Reclaiming and loading.

(9) Truck hauling on paved and unpaved roads.

(j) Limestone handling facility, identified as PB-65, constructed in 1993 and modified in 2009, with a maximum throughput of 137.7 tons per hour, consisting of the following operations:

(1) Truck unloading.

(2) Move bulk materials - haul trucks, dozers, front end loaders, other heavy mobile equipment, etc.

(3) Outside storage pile.

(4) Reclaiming and loading.

(5) Transfer - hoppers, feeders, conveyors, silos, etc.

(6) Enclosures at drop points.

(7) Baghouses on the silos.

(8) Limestone wet ball mills.

(9) Truck hauling on paved and unpaved roads.

(k) FGD sludge (gypsum) handling facility, identified as PB-67, constructed in 1993 and modified in 2009, with a maximum throughput of 300.2 tons per hour, consisting of the following operations:

(1) Wet handling to dewatering process.

(2) Transfer - hoppers, feeders, conveyors, etc.

(3) Enclosures at drop points.

(4) Free fall from overhead conveyors to inside piles.

(5) Inside and outside storage piles.

(6) Loading.

(7) Move bulk materials - haul trucks, front end loader, other heavy mobile equipment, etc.

(8) Truck hauling on paved and unpaved roads.

(l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of 305.6 tons per hour, consisting of the following operations:

(1) Move bulk materials - haul trucks, front end loader, bulldozer, excavating, dredging, other heavy mobile equipment, etc.

(2) Transfer - silos, hoppers, feeders, conveyors, day tanks with baghouses, pugmill mixers with dust collectors, etc.

(3) Enclosures at drop points.

(4) Conveying dry fly ash to silos with baghouses.

(5) Wet process ash handling from Units 3 and 4 to ash pond and/or dewatering bins.

(6) Wet process ash handling from Units 1 and 2 to ash ponds.

(7) Free fall from overhead conveyor to outside pile.

(8) Outside storage pile.

(9) Existing ash pond disposal facilities.

(10) Landfill disposal facilities for Coal Combustion Products.

(11) Truck and tanker loading.

(12) Truck unloading.

(13) Truck hauling on paved and unpaved roads.

(m) One (1) fly ash railcar loading operation, identified as BH-N, constructed in 2005, with a maximum throughput rate of 37.5 tons of fly ash per hour, controlled by a baghouse, and exhausting through stack 101.

(n) One (1) fly ash railcar loading operation from Ash Silo 3, constructed in 2005, with a maximum throughput rate of 200 tons of fly ash per hour, with an enclosed drop from Silo 3 to an air-fluidized enclosed loadout slide from the silo and a gasket drop to enclosed railroad cars, controlled by baghouse B-11, and exhausting through stack 11.

(o) One (1) Cooling Tower associated with Unit 4, identified as CT-4, permitted in 2011, with a capacity of 224,939 gallons circulating water per minute and a maximum drift rate of 0.001%.

(p) Activated Carbon Injection Systems, consisting of the following operations:

(1) One (1) activated carbon injection silo, serving unit 1, identified as ACI-1, approved for construction in 2013, with a maximum storage capacity of 160 tons, and a maximum throughput of 650 lbs/hr, controlled by a bin vent filter.

(2) One (1) activated carbon injection silo, serving unit 2, identified as ACI-2, approved for construction in 2013, with a maximum storage capacity of 230 tons, and a maximum throughput of 1,225 lbs/hr, controlled by a bin vent filter.

(3) One (1) activated carbon injection silo, serving unit 3, identified as ACI-3, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,637 lbs/hr, controlled by a bin vent filter.

(4) One (1) activated carbon injection silo, serving unit 4, identified as ACI-4, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,640 lbs/hr, controlled by a bin vent filter.

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) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-3-2]

(b) Vents from transport systems associated with the handling of various materials including but not limited to vacuum pumps associated with respective operations. [326 IAC 6-3-2]

(c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NO_X; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5];

(2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5]; and

(3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2]

(d) Truck hauling on paved and unpaved roads. [326 IAC 6-4] [326 IAC 6-5]

(e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

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).

(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, T 125-30045-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

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

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

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

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

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

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) It contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

(a) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304**.**

(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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T 125-30045-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

(b) All previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

B.15 Reserved

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

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

Request for renewal shall be submitted to:

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

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

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

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

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

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Permit Administration and Support Section, 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 that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 01, 2004. The plan is included as Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

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]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, 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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation to the extent required by 326 IAC 3-5 at all times that the forced draft fan is in operation.

(b) All applicable COMS, as defined in 40 CFR Part 60, Appendix B Section 1.0, shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

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

(d) Whenever 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 later than twenty-four (24) hours after the start of the malfunction or down time; provided, however, that if such 24-hour period ends during the period beginning two (2) hours before sunset and ending two (2) hours after sunrise, then such visible emissions readings shall begin within four (4) hours of sunrise on the day following the expiration of such 24-hour period.

(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 COMS is online.

(3) Method 9 readings are not required on stacks with operating scrubbers.

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

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

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 60 and/or 40 CFR 63).

C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

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

(d) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:

(1) If the CEM is required for monitoring NO_x or SO_2 emissions pursuant to 40 CFR 75 (Title IV Acid Rain program) or 326 IAC 10-4 (NO_x Budget Trading Program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.

(2) If the CEM is not used to monitor NO_x or SO_2 emissions pursuant to 40 CFR 75 or 326 IAC 10-4, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, 40 CFR 60.

C.14 Reserved

C.15 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.16 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 shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval 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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) 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.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.18 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is 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 or usual manner of operation.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall record the reasonable response steps taken.

C.19 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

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

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

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

The statement must be submitted to:

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

The emission statement does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

(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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

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

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

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

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

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

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted no later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is::

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

(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) Reserved

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

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit other than Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

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

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

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

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

(4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part 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

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

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

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

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

Stratospheric Ozone Protection

C.23 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 applicable standards for recycling and emissions reduction.

Ambient Monitoring Requirements [326 IAC 7-3]

C.24 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 1 and 2

(a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, and low NO_X burner (installed in 1995) for NO_X reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator, FGD scrubber (installed in 1996), and selective catalytic reduction (installed in 2004) as control, and low NO_X burner for NO_X reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

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

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

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

(a) Pursuant to 326 IAC 6-2-3(d), particulate emissions from Unit 1 shall not exceed 0.8 pounds per MMBtu.

(b) Pursuant to 326 IAC 6-2-3, the particulate matter emissions from Unit 2 shall not exceed 0.46 lb per MMBtu when exhausting to the main stack and 0.44 lb per MMBtu when exhausting to the bypass stack. The pounds per million Btu limits were calculated using the following equation:

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

where C = 50 u/m3
Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)
Q = total source maximum operating capacity rating (Q = 6344 MMBtu/hr)
N = number of stacks (N = 1)
a = plume rise factor (a = 0.8)
h = stack height (h = 621 ft; h of bypass stack = 604.5 ft)

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 1 and 2:

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

For Unit 1, compliance with the opacity limit is determined by adding the Unit 1 Scrubbed and Unit 1 Bypass stacks' opacity exceedances during the startup period. For Unit 2, compliance with the opacity limit is determined by adding the Unit 2 Scrubbed and Unit 2 Bypass stacks' opacity exceedances during the startup period.

(2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.

(3) Operation of the electrostatic precipitators are not required during these times.

(b) 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)]

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

D.1.3 Sulfur Dioxide (SO_2) Emission Limitations [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, the SO2 emissions from Units 1 and 2 shall each not exceed 6.0 pounds per million Btu (lbs/MMBtu), when burning coal or coal in combination with any other fuel, and five-tenths (0.5) pounds per MMBtu when burning fuel oil

Compliance Determination Requirements

D.1.4 Particulate Control [40 CFR 64]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.1.1, the electrostatic precipitators for particulate control shall be in operation and control emissions from Units 1 and 2 at all times that the respective facilities are in operation.

D.1.5 Sulfur Dioxide Control

Except as otherwise provided by statute or rule or in this permit, the FGD scrubbers for SO_2 control shall be in operation as needed to maintain compliance with all applicable SO_2 limits.

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for Units 1 and 2, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.7 Continuous Emission Monitoring [326 IAC 3-5] [40 CFR Part 75]

(a) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring SO_2, NO_X, and CO_2 emissions from Units 1 and 2. Each CEMS must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS shall be used to determine compliance with Condition D.1.3.

(b) The CEMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.

(c) All CEMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a CEMS pursuant to 326 IAC 3-5 and/or 40 CFR Part 75.

D.1.8 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from Units 1 and 2. The continuous opacity monitoring systems (COMS) shall meet the performance specifications of
326 IAC 3-5-2.

(b) The COMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for COMS breakdowns, repairs, calibration checks, and zero and span adjustments.

(c) All COMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(d) In instances of COMS downtime, the source shall follow the procedures in accordance with Section C - Maintenance of Continuous Opacity Monitoring Equipment, until such time that the COMS is back in operation.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a COMS pursuant to 326 IAC 3-5, 40 CFR Part 60, and/or 40 CFR Part 75.

(f) Pursuant to SPM 125-12171-00002, issued on February 20, 2001 and 326 IAC 3-5-1(c)(2)(A)(iii), an alternative monitoring requirement request has been granted for the location of the continuous opacity emission monitors for Unit 2. The monitors shall be located in the unit ducts 2-1 and 2-2 at the ID fan discharge location, downstream of the electrostatic precipitator and upstream of the scrubbers.

The combined data obtained from the continuous opacity monitors located in the ducts of Unit 2 at the Petersburg Generating Station is enforceable information for purposes of demonstrating compliance with 326 IAC 5.

D.1.9 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.1.3. Compliance with these limits shall be determined using SO_2 CEMS data and demonstrated using a thirty (30) day rolling weighted average.

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

D.1.10 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

(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 90 percent (90%). T-R set failure resulting in less than 90 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.1.11 Opacity Readings - Response Steps [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Except when the scrubber is in operation and during periods of start up and shut down, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity from either boiler exceeds thirty percent (30%) for three (3) consecutive six (6) minute averaging periods. The response steps shall be conducted such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced, adjustment of flue gas conditioning rate, and ESP T-R sets being returned to service.

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

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

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

(a) Whenever the SO_2 continuous emission monitoring (CEMS) system is malfunctioning or down for repairs or adjustments and a backup CEM is not brought on-line, the following shall be used to provide information related to SO_2 emissions:

(1) If the CEM system is down for less than twenty-four (24) hours and a backup CEM is not brought on-line, 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) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMs cannot be brought on-line, the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.1.3 until the primary CEMS or a backup CEMS is brought online.

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

D.1.13 Record Keeping Requirements

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

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

(2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6.

(3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when a scrubber is not in service.

(4) All ESP parametric monitoring readings.

(b) To document compliance with Conditions D.1.3, D.1.7, D.1.9, and D.1.12, the Permittee shall maintain records in accordance with (1) through (5) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.3 and D.1.7.

(1) All SO_2 continuous emissions monitoring data pursuant to 326 IAC 3-5-6.

(2) Calculated fuel usage during each SO_2 CEMS downtime for Unit(s) affected by CEM downtime lasting 24 hours or more.

(3) All ESP parametric monitoring readings.

(4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO_2 CEM downtime, in accordance with Condition D.1.12.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of all NO_X continuous emissions monitoring data pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_X limits as required in 40 CFR Part 75.

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

D.1.14 Reporting Requirements

(a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.1.7 and D.1.8 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) 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; and

(5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, and low NO_X burner (installed in 2001) for NO_X reduction, and exhausts to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(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.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.

D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

(a) For particulate matter:

(1) One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]

(2) Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.

(b) For sulfur dioxide:

(1) Eight-tenths (0.80) pound SO_2 per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]

(2) One and two-tenths (1.2) pound SO_2 per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]

(3) When combusting different fossil fuels simultaneously, the applicable SO_2 limit shall be determined using the formula in 40 CFR 60.43(b).

(c) For nitrogen oxides:

(1) Three-tenths (0.30) pound NO_X per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]

(2) Seven-tenths (0.70) pound NO_X per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]

(3) When combusting different fossil fuels simultaneously, the applicable NO_X limit shall be determined using the formula in 40 CFR 60.44(b).

D.2.3 Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD BACT), the following requirements shall apply to Unit 4:

(a) Sulfur dioxide (SO_2) emissions shall not exceed 1.2 pounds per MMBtu heat input when burning coal.

(b) PM emissions shall not exceed 0.1 pounds per MMBtu heat input.

(c) Nitrogen oxides (NO_X) emissions shall not exceed 0.7 pounds per MMBtu heat input.

D.2.4 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:

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

(2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.

(3) Operation of the electrostatic precipitators are not required during these times.

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

D.2.5 Sulfur Dioxide (SO_2) Emission Limitations [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, the SO_2 emissions from Units 3 and 4 shall each not exceed 6.0 pounds per million Btu (lbs/MMBtu), when burning coal or coal in combination with any other fuel, and five-tenths (0.5) pounds per MMBtu when burning fuel oil.

Compliance Determination Requirements

D.2.6 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.3(b), the electrostatic precipitators (ESPs) for particulate control shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

D.2.7 Sulfur Dioxide Control

(a) In order to comply with Condition D.2.5, the FGD scrubber for SO_2 control shall be in operation and control emissions from Unit 3 at all times that the respective facility is in operation, except when compliance is determined through the use of low sulfur coal as allowed by 40 CFR Part 60, Subpart D.

(b) In order to comply with Conditions D.2.3(a) and D.2.5, the FGD scrubber for SO_2 control shall be in operation and control emissions from Unit 4 at all times that the facility is in operation**,** except where compliance is achieved by use of low sulfur coal as allowed by 40 CFR 60, Subpart D.

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

In order to demonstrate the compliance status with Condition D.2.3(b), the Permittee shall perform PM testing on Unit 4.

These tests shall be repeated at least once every two (2) calendar years following valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing utilizing methods approved by the Commissioner.

D.2.9 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.3(a), when the SO_2 continuous emissions monitor is down and low sulfur coal is used to control SO_2, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

D.2.10 Continuous Emission Monitoring [326 IAC 3-5][40 CFR Part 75]

(a) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring SO_2, NO_X, and CO_2 emissions from Unit 3. Each CEMS required by this permit must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS will be used to determine compliance with Conditions D.2.5 and D.2.12.

(b) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring SO_2, NO_X, and CO_2 emissions from Unit 4. Each CEMS required by this permit must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS will be used to determine compliance with Conditions D.2.3, D.2.5 and D.2.12.

(c) The CEMS required by this permit must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.

(d) All CEMS required by this permit are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(e) Excess SO_2 emissions for affected facilities are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43. Three hour block averaging will satisfy this requirement.

(f) Excess NO_X emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44. Three hour block averaging will satisfy this requirement.

(g) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a CEMS pursuant to 326 IAC 3-5 and 40 CFR Part 75.

D.2.11 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from Units 3 and 4. The continuous opacity monitoring system (COMS) shall meet the performance specifications of 326 IAC 3-5-2.

(b) The COMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for COMS breakdowns, repairs, calibration checks, and zero and span adjustments.

(c) All COMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a COMS pursuant to 326 IAC 3-5 and 40 CFR Part 75.

D.2.12 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.2.5. Compliance with these limits shall be determined using SO_2 CEMS data and demonstrated using a thirty (30) day rolling weighted average.

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

D.2.13 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

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

(b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below 90 percent (90%). T-R set failure resulting in less than 90 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.2.14 SO_2 Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

(a) Whenever the SO_2 continuous emission monitoring (CEMS) system is malfunctioning or down for repairs or adjustments and a backup CEM is not brought on-line, the following shall be used to provide information related to SO_2 emissions:

(1) If the CEM system is down for less than twenty-four (24) hours and a backup CEM is not brought on-line, 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) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMs cannot be brought on-line**,** the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.2.3(a) until the primary CEMS or a backup CEMS is brought online

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

D.2.15 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.2.3, D.2.4, D.2.10, and D.2.13, 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.2.3 and D.2.4:

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

(2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6;

(3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when the scrubber is not in service; and

(4) All ESP parametric monitoring readings.

(b) To document compliance with Conditions D.2.3, D.2.5, D.2.10, D.2.12, and D.2.14, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.2.3 and D.2.5.

(1) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6.

(2) All scrubber parametric monitoring readings taken in accordance with Condition D.2.14.

(3) Calculated fuel usage during each SO_2 CEMS downtime for Unit(s) affected by CEM downtime lasting 24 hours or more.

(4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO_2-CEM downtime, in accordance with Condition D.2.14.

(c) To document compliance with Conditions D.2.3, and D.2.10, the Permittee shall maintain records of all NO_X continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_X limits as required in Condition D.2.3.

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

D.2.16 Reporting Requirements

(a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Condition D.2.7 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) 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; and

(5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Coal Handling Facilities

(h) Coal handling facility, identified as PB-45 "System A", constructed in 1963, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.
(2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.
(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
(4) Enclosures at drop points.
(5) Coal crushing with enclosures.
(6) Free fall from overhead conveyor to outside pile.
(7) Outside storage pile.
(8) Reclaiming and loading.
(9) Truck hauling on paved and unpaved roads.

(i) Coal and limestone handling facility, identified as PB-48 "System B," constructed in 1973, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.
(2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.
(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
(4) Enclosures at drop points.
(5) Coal crushing with enclosures.
(6) Limestone wet ball mill.
(7) Outside storage pile.
(8) Reclaiming and loading.
(9) Truck hauling on paved and unpaved roads.

(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.3.1 Particulate Emission Limitations for Manufacturing Processes [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 and limestone handling facilities (PB-45 and PB-48) (excluding ash ponds, vehicular traffic on paved and unpaved roads, (including truck hauling), conveyance systems open to the atmosphere, storage piles, free fall to storage piles, tanker and truck loading/unloading, bulk material movement, and general construction activities) shall not exceed an amount determined by the following:

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

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

(b) 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.

Compliance Determination Requirements

D.3.2 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.3.1 the enclosures for particulate control shall be in place and control emissions at all times facilities PB-45 “System A” and PB-48 “System B” are in operation.

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

D.3.3 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the unenclosed coal and limestone transfer points shall be performed once per week during normal daylight operations when unloading coal and limestone. A trained employee shall record whether emissions are normal or abnormal.

(b) If abnormal emissions are observed, 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. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

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

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

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

D.3.4 Record Keeping Requirements

(a) To document the compliance status with Section C - Opacity and Condition D.3.3, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Limestone/Fly Ash/Gypsum Handling Facilities

(j) Limestone handling facility, identified as PB-65, constructed in 1993 and modified in 2009, with a maximum throughput of 137.7 tons per hour, consisting of the following operations:

(1) Truck unloading.

(2) Move bulk materials - haul trucks, dozers, front end loaders, other heavy mobile equipment, etc.

(3) Outside storage pile.

(4) Reclaiming and loading.

(5) Transfer - hoppers, feeders, conveyors, silos, etc.

(6) Enclosures at drop points.

(7) Baghouses on the silos.

(8) Limestone wet ball mills.

(9) Truck hauling on paved and unpaved roads

(k) FGD sludge (gypsum) handling facility, identified as PB-67, constructed in 1993 and modified in 2009, with a maximum throughput of 300.2 tons per hour, consisting of the following operations:

(1) Wet handling to dewatering process.

(2) Transfer - hoppers, feeders, conveyors, etc.

(3) Enclosures at drop points.

(4) Free fall from overhead conveyors to inside piles.

(5) Inside and outside storage piles.

(6) Loading.

(7) Move bulk materials - haul trucks, front end loader, other heavy mobile equipment, etc.

(8) Truck hauling on paved and unpaved roads.

(l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of 305.6 tons per hour, consisting of the following operations:

(1) Move bulk materials - haul trucks, front end loader, bulldozer, excavating, dredging, other heavy mobile equipment, etc.

(2) Transfer - silos, hoppers, feeders, conveyors, day tanks with baghouses, mixers, etc.

(3) Enclosures at drop points.

(4) Conveying dry fly ash to silos with baghouses.

(5) Wet process ash handling from Units 3 and 4 to ash pond and/or dewatering bins.

(6) Wet process ash handling from Units 1 and 2 ash pond.

(7) Free fall from overhead conveyor to outside pile.

(8) Outside storage pile.

(9) Existing ash pond disposal facilities.

(10) Landfill disposal facilities for Coal Combustion Products.

(11) Truck and tanker loading.

(12) Truck unloading.

(13) Truck hauling on paved and unpaved roads.

(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.4.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to facility PB-65 except when otherwise specified in 40 CFR Part 60, Subpart OOO.

D.4.2 New Source Performance Standard (NSPS): Nonmetallic Mineral Processing Plants [326 IAC 12] [40 CFR 60, Subpart OOO]

The limestone handling facility, PB-65, shall comply with the applicable portions of 40 CFR 60, Subpart OOO incorporated by reference in 326 IAC 12-1.

D.4.3 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall control fugitive dust on paved roads by wetting or flushing with a watering truck or cleaning with a vacuum-sweeper on an as needed basis as specified in the Fugitive Dust Control Plan in Attachment B.

Therefore, the emissions from the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) and the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4, are limited to less than 25 tons/yr for PM, and the requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) nor the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4.

Further, the emissions from the modification (SSM 125-32721-00002), approved in 2013(installation of ACI Systems, Sorbent Unloading associated with SBS Systems, and increased Ash handling emissions) are limited to less than 25 tons per year for PM, less than 15 tons per year for PM10 and less than 10 tons per year for PM2.5. The requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-32721-00002).

D.4.4 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the operations performed at facilities PB-51 (excluding ash ponds, vehicular traffic on paved and unpaved roads (includes truck hauling), conveyance systems open to the atmosphere, storage piles, tanker and truck loading/unloading, bulk

material movement, and general construction activities) shall not exceed an amount determined by the following:

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

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

(b) 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.

Compliance Determination Requirement

D.4.5 NSPS Compliance Provisions [326 IAC 12] [40 CFR 60, Subpart OOO]

Compliance with the particulate and opacity emission limitations in Condition D.4.2 shall be determined by the methods and procedures specified in 40 CFR 60.675.

D.4.6 Particulate Control [326 IAC 2-7-6(6)]

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

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

D.4.7 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the exhaust from the limestone/fly ash silo baghouses shall be performed once per week during normal daylight operations when the respective facilities are in operation. A trained employee shall record whether any emissions are observed.

(b) Visible emission notations of the exhaust from all unenclosed limestone/gypsum transfer points shall be performed once per week during normal daylight when transferring the respective material. A trained employee shall record whether emissions are normal or abnormal.

(c) Visible emissions notations of the exhaust from all unenclosed fly ash transfer points shall be performed once per day during normal daylight when transferring the respective material. A trained employee shall record whether emissions are normal or abnormal.

(d) 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.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of an abnormal emission that does 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.

(f) 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.

(g) 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.

(h) 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.

D.4.8 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 used in conjunction with the silos at least once per week when the silos are receiving material. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions 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 drop shall comply with 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.4.9 Record Keeping Requirements

(a) To document the compliance status with Section C - Opacity and Condition D.4.7, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).

(b) To document the compliance status with Condition D.4.8, the Permittee shall maintain a weekly record of the pressure drop across each baghouse. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (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 D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(a) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6-3-2].

(b) Vents from transport systems associated with the handling of various materials including but not limited to vacuum pumps associated with respective operations. [326 IAC 6-3-2].

(c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NO_X; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5].

(3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2]

(d) Truck hauling on paved and unpaved roads. [326 IAC 6-4] [326 IAC 6-5]

(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.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from coal bunker and coal scale exhausts and associated dust collector vents and vents from transport systems associated with the handling of various materials, including but not limited to vacuum pumps associated with respective operations, shall not exceed an amount determined by the following:

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.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Fly Ash Loadout Operations

(m) One (1) fly ash railcar loading operation, identified as BH-N, constructed in 2005, with a maximum throughput rate of 37.5 tons of fly ash per hour, controlled by a baghouse, and exhausting through stack 101.

(n) One (1) fly ash railcar loading operation from Ash Silo 3, constructed in 2005, with a maximum throughput rate of 200 tons of fly ash per hour, with an enclosed drop from Silo 3 to an air-fluidized enclosed loadout slide from the silo and a gasket drop to enclosed railroad cars, controlled by baghouse B-11, and exhausting through stack 11.

(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.6.1 PSD Minor Limits [326 IAC 2-2][326 IAC 6-3-2]

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

Unit Description	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	Construction Permit
Fly Ash Railcar Loading Operation BH-N	5.68	3.40	SSM #125-20083-00002, issued on June 7, 2005
Fly Ash Rail Loading Operation from Ash Silo 3	5.69	3.40	SSM #125-21340-00002, issued on September 26, 2005

Therefore, the emissions from each of the fly ash railcar loading operations are limited to less than 25 tons/yr for PM and less than 15 tons/yr for PM_{10}, and the requirements of 326 IAC 2-2 (PSD) are not applicable to these operations when they were constructed. Compliance with this permit condition will also satisfy the requirements of 326 IAC 6-3-2.

Compliance Determination Requirement

D.6.2 PM and PM_{10} Control [40 CFR 64]

(a) In order to comply with Conditions D.6.1, the baghouses for particulate control shall be in operation and control emissions from the fly ash railcar loading operations at all times that these units are in operation.

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

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

D.6.3 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

(a) Visible emission notations of the baghouse stack exhausts (stacks 101 and 11) for the fly ash railcar loading operations shall be performed at least once per week during normal daylight operations. 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. Observation of an abnormal emission that does 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.6.4 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the fly ash railcar loading operations at least once per week. When for any one reading, the pressure drop across the baghouse is outside the normal ranges listed in the table below or 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.

Unit Description	Baghouse Stack ID	Pressure Drop Range (inches of water)
Fly Ash Railcar Loading Operation BH-N	101	0.5 - 6.0
Fly Ash Rail Loading Operation from Ash Silo 3	11	0.5 - 6.0

The instrument used for determining the pressure shall comply with 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.6.5 Record Keeping Requirements

(a) To document the compliance status with Section C - Opacity and Condition D.6.3, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).

(b) To document the compliance status with Condition D.6.4, the Permittee shall maintain a weekly record of the pressure drop across each baghouse. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (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 D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Cooling Towers

(o) One (1) Cooling Tower associated with Unit 4, identified as CT-4, permitted in 2011, with a capacity of 224,939 gallons circulating water per minute and a maximum drift rate of 0.001%.

(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.7.1 PSD Minor Limit [326 IAC 2-2]

The existing Unit 4 Cooling Tower shall be permanently shutdown prior to the startup of the proposed CT-4.

Compliance with the above requirement and the requirement in Condition D.4.3 will restrict the potential to emit PM from the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4, and the scrubber modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) to less than twenty-five (25) tons per year. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4 nor the scrubber project (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4).

Compliance Determination Requirements

D.7.2 Particulate Control [326 IAC 2-7-6(6)]

The drift eliminators for particulate control shall be in operation and control emissions at all times that CT-4 is in operation.

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]: Insignificant Activities

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

(e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

(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 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

D.8.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ, which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6612
(8) 40 CFR 63.6620
(9) 40 CFR 63.6625(e),(f),(h),(i)
(10) 40 CFR 63.6640(a),(b),(e),(f)
(11) 40 CFR 63.6645(a)(5)
(12) 40 CFR 63.6650(a),(b)(1)-(5),(c),(d),(e),(f)
(13) 40 CFR 63.6655(a)(1),(2),(4),(b),(d),(e),(f)(1)
(14) 40 CFR 63.6660
(15) 40 CFR 63.6665
(16) 40 CFR 63.6670
(17) 40 CFR 63.6675
(18) Table 2c(1), 6(9), 7(a) and 8.

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Activated Carbon Injection Systems

(p) Activated Carbon Injection Systems, consisting of the following operations:

(1) One (1) activated carbon injection silo, serving unit 1, identified as ACI-1, approved for construction in 2013, with a maximum storage capacity of 160 tons, and a maximum throughput of 650 lbs/hr, controlled by a bin vent filter.

(2) One (1) activated carbon injection silo, serving unit 2, identified as ACI-2, approved for construction in 2013, with a maximum storage capacity of 230 tons, and a maximum throughput of 1,225 lbs/hr, controlled by a bin vent filter.

(3) One (1) activated carbon injection silo, serving unit 3, identified as ACI-3, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,637 lbs/hr, controlled by a bin vent filter.

(4) One (1) activated carbon injection silo, serving unit 4, identified as ACI-4, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,640 lbs/hr, controlled by a bin vent filter.

(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.9.1 PSD Minor Limits [326 IAC 2-2]

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

Unit Description	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	PM2.5 Limit (lbs/hr)
ACI-1	0.12	0.06	0.06
ACI-2	0.12	0.06	0.06
ACI-3	0.12	0.06	0.06
ACI-4	0.12	0.06	0.06

Compliance with these emission limits and Condition D.4.3 together with the projected emissions increase from existing boilers, paved roads and fly ash handling will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM_{10} per year and less than ten (10) tons of PM2.5 per year and therefore will render the requirements of 326 IAC 2-2 not applicable to the 2013 modification (SSM 125-32721-00002).

D.9.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emission rate from the Activated Carbon Injection Systems and Sorbent Unloading operations shall not exceed the emission limits listed in the table below:

Unit Description	Max. Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)
ACI-1	0.325	1.93
ACI-2	0.6125	2.95
ACI-3	0.8185	3.59
ACI-4	0.82	3.59

The emission limits above were calculated using the equation below:

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

Compliance Determination Requirements

D.9.3 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with the particulate matter emissions limits specified in Condition D.9.1 silo bin vent filters shall in operation and controlling emissions whenever the equipment is in operation and venting to the control device.

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

D.9.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Visible emission notations of the activated carbon injection silos identified as ACI-1, ACI-2, ACI-3 and ACI-4 shall be performed once per week during normal daylight operations when the equipment is in operation. A trained employee shall record whether emissions are normal or abnormal.

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

D.9.5 Record Keeping Requirements

To document the compliance status with Condition D.9.4- Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations from Activated Carbon injection system identified as ACI-1, ACI-2, ACI-3, and ACI-4. 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).

SECTION E **TITLE IV CONDITIONS**
ORIS Code: 994

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

(a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, and low NO_X burner (installed in 1995) for NO_X reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator, FGD scrubber (installed in 1996), and selective catalytic reduction (installed in 2004) as control, and low NO_X burner for NO_X reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, and low NO_X burner (installed in 2001) for NO_X reduction, and exhausts to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

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

Acid Rain Program

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

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

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

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

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

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

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

SECTION G Clean Air Interstate Rule (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: 994

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) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, and low NO_X burner (installed in 1995) for NO_X reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator, FGD scrubber (installed in 1996), and selective catalytic reduction (installed in 2004) as control, and low NO_X burner for NO_X reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, and low NO_X burner (installed in 2001) for NO_X reduction, and exhausts to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(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 the CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X ozone season source and CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit shall operate each unit in compliance with this CAIR permit.

(b) The CAIR NO_X unit(s), CAIR SO_2 unit(s), and CAIR NO_X ozone season unit(s) subject to this CAIR permit are Units 1, 2, 3, and 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 SO_2 source, and CAIR NO_X ozone season source and CAIR NO_X unit, CAIR SO_2 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 SO_2 source, and CAIR NO_X ozone season source with the CAIR NO_X emissions limitation under 326 IAC 24-1-4(c), CAIR SO_2 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 each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO_2 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 SO_2 units at the source, as determined in accordance with 326 IAC 24-2-10.

(b) A CAIR SO_2 unit shall be subject to the requirements under 326 IAC 24-2-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-2-4(c)(2), and for each control period thereafter.

(c) A CAIR SO_2 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 SO_2 allowance was allocated.

(d) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 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 SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 trading program. No provision of the CAIR SO_2 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 SO_2 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 SO_2 allowance to or from a CAIR SO_2 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 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 24-3-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-3-4(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 ozone season 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 ozone season allowance does not constitute a property right.

(g) Upon recordation by the U.S. EPA under 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 SO_2 source and each CAIR SO_2 unit that emits sulfur dioxide during any control period in excess of the CAIR SO_2 emissions limitation shall do the following:

(1) Surrender the CAIR SO_2 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 SO_2 source, and CAIR NO_X ozone season source and each CAIR NO_X unit, CAIR SO_2 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), 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO_X unit, CAIR SO_2 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), 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 SO_2 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 SO_2 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 SO_2 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 SO_2 source, and CAIR NO_X ozone season source and each CAIR NO_X unit, CAIR SO_2 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 SO_2 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 SO_2 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
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 SO_2 source, and CAIR NO_X ozone season source and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit shall be liable as follows:

(a) Each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X ozone season source and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit shall meet the requirements of the CAIR NO_X annual trading program, CAIR SO_2 trading program, and CAIR NO_X ozone season trading program, respectively.

(b) Any provision of the CAIR NO_X annual trading program, CAIR SO_2 trading program, and CAIR NO_X ozone season trading program that applies to a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X ozone season source or the CAIR designated representative of a CAIR NO_X source, CAIR SO_2 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 unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit at the source.

(c) Any provision of the CAIR NO_X annual trading program, CAIR SO_2 trading program, and CAIR NO_X ozone season trading program that applies to a CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit or the CAIR designated representative of a CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit shall also apply to the owners and operators of such unit.

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 SO_2 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 SO_2 source, and CAIR NO_X ozone season source or CAIR NO_X unit, CAIR SO_2 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]

(a) Pursuant to 326 IAC 24-1-6, 326 IAC 24-2-6, and 326 IAC 24-3-6, each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X ozone season source and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X ozone season unit 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 SO_2 trading program, and CAIR NO_X ozone season trading program concerning the source or any CAIR NO_X unit, CAIR SO_2 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 SO_2 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), 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: Indianapolis Power & Light Company - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: IPL - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12) • The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and • The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: IPL - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

Months: _____to_____ Year: _____

Page 1 of 2

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

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TITLE IV (ACID RAIN) PERMIT RENEWAL
OFFICE OF AIR QUALITY

Indianapolis Power & Light (IPL) -
Petersburg Generating Station
6925 N. State Road 57
Petersburg, Indiana, 47567

ORIS: 994

The owners and operators (hereinafter collectively known as the Permittee) of the above source are issued this permit under the provisions of 326 Indiana Administrative Code (IAC) 21 [326 IAC 21] with conditions listed on the attached pages.

Operation Permit No.: AR 125-27991-00002	
Issued by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: August 25, 2009 Expiration Date: August 25, 2014

Title IV Operating Conditions

Title IV Source Description:

(a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2,200 MMBtu per hour, using an electrostatic precipitator and FGD scrubber as particulate matter control, low NOx burners for NOx reduction, and exhausting to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4,144 MMBtu per hour, an electrostatic precipitator and FGD scrubber as particulate matter control, low NOx burners for NOx reduction, and exhausting to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5,540 MMBtu per hour, an electrostatic precipitator, FGD scrubber and selective catalytic reduction as control, and exhausting to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO_2), and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, constructed in 1978, with a design capacity of 5,550 MMBtu per hour, an electrostatic precipitator and FGD scrubber as particulate matter control, low NOx burners for NOx reduction, and exhausting to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NOx) and sulfur dioxide (SO_2) and a continuous opacity monitor (COM).

(The information contained in this box is descriptive information and does not constitute enforceable conditions.)

1. Statutory and Regulatory Authorities

In accordance with IC 13-17-3-4 and IC 13-17-3-11, as well as Titles IV and V of the Clean Air Act, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) issues this permit pursuant to 326 IAC 2 and 326 IAC 21 (incorporates by reference 40 Code of Federal Regulations (CFR) 72 through 78).

2. Standard Permit Requirements [326 IAC 21]

(a) The designated representative has submitted a complete acid rain permit application in accordance with 40 CFR 72.30.

(b) The Permittee shall operate Units 1, 2, 3, and 4 in compliance with this permit.

3. Monitoring Requirements [326 IAC 21]

(a) The Permittee and, to the extent applicable, the designated representative of Units 1, 2, 3, and 4 shall comply with the monitoring requirements as provided in 40 CFR 75 and 76.

(b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 76 shall be used to determine compliance by Units 1, 2, 3, and 4 with the acid rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(c) The requirements of 40 CFR 75 and 76 shall not affect the responsibility of the Permittee to monitor emissions of other pollutants or other emissions characteristics at Units 1, 2, 3, and 4 under other applicable requirements of the Clean Air Act and other provisions of the operating permit for the source.

4. Sulfur Dioxide Requirements [326 IAC 21]

(a) The Permittee shall:

(1) Hold allowances, as of the allowance transfer deadline (as defined in 40 CFR 72.2), in the compliance subaccount of Units 1, 2, 3, and 4, after deductions under 40 CFR 73.34(c), not less than the total annual emissions of sulfur dioxide for the previous calendar year from Units 1, 2, 3, and 4; and,

(2) Comply with the applicable acid rain emissions limitations for sulfur dioxide.

(b) Each ton of sulfur dioxide emitted in excess of the acid rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Clean Air Act.

(c) Units 1, 2, 3, and 4 shall be subject to the requirements under paragraph 4(a) of the sulfur dioxide requirements as follows:

(1) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or,

(2) Starting on the latter of January 1, 2000, or the deadline for monitor certification under 40 CFR 75, an affected unit under 40 CFR 72.6(a)(3).

(d) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(e) An allowance shall not be deducted in order to comply with the requirements under paragraph 4(a) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(f) An allowance allocated by the U.S. EPA under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the acid rain permit application, the acid rain permit, the acid rain portion of an operating permit, or the written exemption under 40 CFR 72.7 and 72.8 and 326 IAC 21, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(g) An allowance allocated by U.S. EPA under the Acid Rain Program does not constitute a property right.

(h) No permit revision may be required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program, provided that the increases do not require a permit revision under any other applicable requirement.
[326 IAC 2-7-5(4)(A)]

(i) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to noncompliance with any applicable requirement other than the requirements of the Acid Rain Program.
[326 IAC 2-7-5(4)(B)]

5. Nitrogen Oxides Requirements [326 IAC 21]

(a) The Permittee shall comply with the terms applicable to Petersburg Units 1, 2, 3 and 4 which are contained in the approved Phase II NO_x Averaging Plan that was filed with IDEM on June 28, 2004, a copy of which is attached to this permit.

(b) Under any circumstances, the Permittee may demonstrate compliance with the applicable acid rain emissions limitations of nitrogen oxide for all units in the Phase II NO_x Averaging Plan by using the equation set forth in 40 C.F.R. § 76.11(d)(1)(ii)(A)..

6. Excess Emissions Requirements [40 CFR 77] [326 IAC 21]

(a) If Units 1, 2, 3 and 4 has excess emissions of sulfur dioxide in any calendar year, the designated representative shall submit a proposed offset plan to U.S. EPA and IDEM, OAQ as required under 40 CFR 77 and 326 IAC 21.

(b) The designated representative shall submit required information to:

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

and

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

(c) If Units 1, 2, 3 and 4 has excess emissions, as defined in 40 CFR 72.2, in any calendar year, the Permittee shall:

(1) Pay to U.S. EPA without demand the penalty required, and pay to U.S. EPA upon demand the interest on that penalty, as required by 40 CFR 77 and 326 IAC 21; and,

(2) Comply with the terms of an approved sulfur dioxide offset plan, as required by 40 CFR 77 and 326 IAC 21.

7. Record Keeping and Reporting Requirements [326 IAC 21]

(a) Unless otherwise provided, the Permittee shall keep on site each of the following documents for a period of 5 years, as required by 40 CFR 72.9(f), from the date the document is created. This period may be extended for cause, at any time prior to the end of the 5 years, in writing by U.S. EPA or IDEM, OAQ:

(1) The certificate of representation for the designated representative of Units 1, 2, 3 and 4 and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

(2) All emissions monitoring information collected in accordance with 40 CFR 75 shall be retained on site for 3 years;

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

(4) Copies of all documents used to complete an acid rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(b) The designated representative of Units 1, 2, 3 and 4 shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72.90 subpart I, 40 CFR 75, and 326 IAC 21. The required information is to be submitted to the appropriate authority(ies) as specified in 40 CFR 72.90 subpart I and 40 CFR 75.

8. Submissions [326 IAC 21]

(a) The designated representative of Units 1, 2, 3 and 4 shall submit a certificate of representation, and any superseding certificate of representation, to U.S. EPA and IDEM, OAQ in accordance with 40 CFR 72 and 326 IAC 21.

(b) The designated representative shall submit required information to:

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

and

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

(c) Each such submission under the Acid Rain Program shall be submitted, signed and certified by the designated representative for all sources on behalf of which the submission is made.

(d) In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature, the following statements which shall be included verbatim in the submission:

(1) “I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made.”; and,

(2) “I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.”

(e) The designated representative of Units 1, 2, 3 and 4 shall notify the Permittee:

(1) By the date of submission, of any Acid Rain Program submissions by the designated representative;

(2) Within 10 business days of receipt of any written determination by U.S. EPA or IDEM, OAQ; and,

(3) Provided that the submission or determination covers Units 1, 2, 3 and 4.

(f) The designated representative of Units 1, 2, 3 and 4 shall provide the Permittee a copy of any submission or determination under paragraph 8(e), unless the Permittee expressly waives the right to receive a copy.

9. Severability [326 IAC 21]

Invalidation of the acid rain portion of an operating permit does not affect the continuing validity of the rest of the operating permit, nor shall invalidation of any other portion of the operating permit affect the continuing validity of the acid rain portion of the permit. [40 CFR 72.72(b), 326 IAC 21, and 326 IAC 2-7-5(5)]

10. Liability [326 IAC 21]

(a) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement by U.S. EPA pursuant to Section 113(c) of the Clean Air Act and shall be subject to enforcement by IDEM pursuant to 326 IAC 21 and IC 13-30-3.

(b) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Clean Air Act, 18 U.S.C. 1001 and IDEM pursuant to 326 IAC 21 and IC 13-30-6-2.

(c) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(d) Units 1, 2, 3 and 4 shall meet the requirements of the Acid Rain Program.

(e) Any provision of the Acid Rain Program that applies to Units 1, 2, 3 and 4, including a provision applicable to the designated representative of Units 1, 2, 3 and 4 shall also apply to the Permittee.

(f) Any provision of the Acid Rain Program that applies to Units 1, 2, 3 and 4, including a provision applicable to the designated representative, shall also apply to the Permittee. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_X averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 75, including 40 CFR 75.16, 75.17, and 75.18, the Permittee and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(g) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by Units 1, 2, 3 and 4, or by the Permittee or designated representative, shall be a separate violation of the Clean Air Act.

11. Effect on Other Authorities [326 IAC 21]

No provision of the Acid Rain Program, an acid rain permit application, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(a) Except as expressly provided in Title IV of the Clean Air Act (42 USC 7651 to 7651(o)), exempting or excluding the Permittee and, to the extent applicable, the designated representative of Units 1, 2, 3 and 4 from compliance with any other provision of the Clean Air Act, including the provisions of Title I of the Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(b) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Clean Air Act;

(c) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

(d) Modifying the Federal Power Act (16 USC 791(a) et seq.) or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(e) Interfering with or impairing any program for competitive bidding for power supply in a state in which such a program is established.

Attachment B
Indianapolis Power & Light - Petersburg Generating Station
Fugitive Dust Control Plan
326 IAC 6-5

1. Name and Address of Source

Petersburg Generating Station
S.R. 57
Petersburg, IN 47567

2. Name of Owner/Operator Responsible for Execution of Control Plan

Petersburg Generation Station
Indianapolis Power & Light Company

3. Identification of Process

Limestone/gypsum haul roads for material utilized by the FGD operations.

4. Location of Paved and Unpaved Roads Covered by Plan

Identified by red outline on source layout diagram.

5. Type of Material Handled

Limestone and gypsum

6. Description of Vehicular Traffic

Haul trucks

7. Control Measures

Fugitive dust on paved and unpaved roads associated with FGD operations will be monitored by visual observations and controlled by wetting or flushing with a watering truck or cleaned with a vacuum-sweeper on an as needed basis.

Attachment C
Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 [40 CFR Part 60, Subpart D]

NSPS 40 CFR Part 60, Subpart D

Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971

Source: 72 FR 32717, June 13, 2007, unless otherwise noted.

§ 60.40 Applicability and designation of affected facility.

(a) The affected facilities to which the provisions of this subpart apply are:

(1) Each fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr)).

(2) Each fossil-fuel and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 73 MW (250 MMBtu/hr).

(b) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this subpart, shall not bring that unit under the applicability of this subpart.

(c) Except as provided in paragraph (d) of this section, any facility under paragraph (a) of this section that commenced construction or modification after August 17, 1971, is subject to the requirements of this subpart.

(d) The requirements of §§60.44 (a)(4), (a)(5), (b) and (d), and 60.45(f)(4)(vi) are applicable to lignite-fired steam generating units that commenced construction or modification after December 22, 1976.

(e) Any facility covered under subpart Da is not covered under this subpart.

§ 60.41 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, and in subpart A of this part.

Boiler operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24-hour period.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference, see §60.17).

Coal refuse means waste-products of coal mining, cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from

such materials for the purpose of creating useful heat.

Fossil fuel and wood residue-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel and wood residue for the purpose of producing steam by heat transfer.

Fossil-fuel-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer.

Wood residue means bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing and forest management operations.

§ 60.42 Standard for particulate matter (PM).

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that:

(1) Contain PM in excess of 43 nanograms per joule (ng/J) heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue.

(2) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.

(b)(1) On or after December 28, 1979, no owner or operator shall cause to be discharged into the atmosphere from the Southwestern Public Service Company's Harrington Station #1, in Amarillo, TX, any gases which exhibit greater than 35 percent opacity, except that a maximum or 42 percent opacity shall be permitted for not more than 6 minutes in any hour.

(2) Interstate Power Company shall not cause to be discharged into the atmosphere from its Lansing Station Unit No. 4 in Lansing, IA, any gases which exhibit greater than 32 percent opacity, except that a maximum of 39 percent opacity shall be permitted for not more than six minutes in any hour.

§ 60.43 Standard for sulfur dioxide (SO_2).

(a) Except as provided under paragraph (d) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain SO_2 in excess of:

(1) 340 ng/J heat input (0.80 lb/MMBtu) derived from liquid fossil fuel or liquid fossil fuel and wood residue.

(2) 520 ng/J heat input (1.2 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue, except as provided in paragraph (e) of this section.

(b) Except as provided under paragraph (d) of this section, when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PS_{SO_2} = \frac{y\,(340) + z\,(520)}{(y + z)}$$

Where:

$PS_{SO}2$= Prorated standard for $S_{O2}$when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels or from all fossil fuels and wood residue fired;

y = Percentage of total heat input derived from liquid fossil fuel; and

z = Percentage of total heat input derived from solid fossil fuel.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

(d) As an alternate to meeting the requirements of paragraphs (a) and (b) of this section, an owner or operator can petition the Administrator (in writing) to comply with §60.43Da(i)(3) of subpart Da of this part or comply with §60.42b(k) of subpart Db of this part, as applicable to the affected source. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.43Da(i)(3) of subpart Da of this part or §60.42b(k) of subpart Db of this part, as applicable to the affected source.

(e) Units 1 and 2 (as defined in appendix G of this part) at the Newton Power Station owned or operated by the Central Illinois Public Service Company will be in compliance with paragraph (a)(2) of this section if Unit 1 and Unit 2 individually comply with paragraph (a)(2) of this section or if the combined emission rate from Units 1 and 2 does not exceed 470 ng/J (1.1 lb/MMBtu) combined heat input to Units 1 and 2.

§ 60.44 Standard for nitrogen oxides (NOx).

(a) Except as provided under paragraph (e) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain NO_X, expressed as NO_2in excess of:

(1) 86 ng/J heat input (0.20 lb/MMBtu) derived from gaseous fossil fuel.

(2) 129 ng/J heat input (0.30 lb/MMBtu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

(3) 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).

(4) 260 ng/J heat input (0.60 lb MMBtu) derived from lignite or lignite and wood residue (except as provided under paragraph (a)(5) of this section).

(5) 340 ng/J heat input (0.80 lb MMBtu) derived from lignite which is mined in North Dakota, South Dakota, or Montana and which is burned in a cyclone-fired unit.

(b) Except as provided under paragraphs (c), (d), and (e) of this section, when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_x} = \frac{w\,(260) + x\,(86) + y\,(130) + z\,(300)}{(w + x + y + z)}$$

Where:

PS_{NOX}= Prorated standard for NO_X when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w = Percentage of total heat input derived from lignite;

x = Percentage of total heat input derived from gaseous fossil fuel;

y = Percentage of total heat input derived from liquid fossil fuel; and

z = Percentage of total heat input derived from solid fossil fuel (except lignite).

(c) When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, the standard for NO_X does not apply.

(d) Except as provided under paragraph (e) of this section, cyclone-fired units which burn fuels containing at least 25 percent of lignite that is mined in North Dakota, South Dakota, or Montana remain subject to paragraph (a)(5) of this section regardless of the types of fuel combusted in combination with that lignite.

(e) As an alternate to meeting the requirements of paragraphs (a), (b), and (d) of this section, an owner or operator can petition the Administrator (in writing) to comply with §60.44Da(e)(3) of subpart Da of this part. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.44Da(e)(3) of subpart Da of this part.

§ 60.45 Emissions and fuel monitoring.

(a) Each owner or operator shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring the opacity of emissions, SO_2emissions, NO_X emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section.

(b) Certain of the CEMS requirements under paragraph (a) of this section do not apply to owners or operators under the following conditions:

(1) For a fossil-fuel-fired steam generator that burns only gaseous fossil fuel and that does not use post-combustion technology to reduce emissions of SO_2or PM, CEMS for measuring the opacity of emissions and SO_2emissions are not required.

(2) For a fossil-fuel-fired steam generator that does not use a flue gas desulfurization device, a CEMS for measuring SO_2emissions is not required if the owner or operator monitors SO_2emissions by fuel sampling and analysis.

(3) Notwithstanding §60.13(b), installation of a CEMS for NO_X may be delayed until after the initial performance tests under §60.8 have been conducted. If the owner or operator demonstrates during the performance test that emissions of NO_X are less than 70 percent of the applicable standards in §60.44, a CEMS for measuring NO_X emissions is not required. If the initial performance test results show that NO_X emissions are greater than 70 percent of the applicable standard, the owner or operator shall install a CEMS for NO_X within one year after the date of the initial performance tests under §60.8 and comply with all other applicable monitoring requirements under this part.

(4) If an owner or operator does not install any CEMS for sulfur oxides and NO_X, as provided under paragraphs (b)(1) and (b)(3) or paragraphs (b)(2) and (b)(3) of this section a CEMS for measuring either

O_2or $CO_2$is not required.

(5) An owner or operator may petition the Administrator (in writing) to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.

(6) A CEMS for measuring the opacity of emissions is not required for a fossil fuel-fired steam generator that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected source are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis. Owners and operators of affected sources electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (b)(6)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (b)(6)(i)(A) through (D) of this section.

(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.

(D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(ii) You must calculate the 1-hour average CO emissions levels for each boiler operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each boiler operating day.

(iii) You must evaluate the preceding 24-hour average CO emission level each boiler operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(iv) You must record the CO measurements and calculations performed according to paragraph (b)(6) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(c) For performance evaluations under §60.13(c) and calibration checks under §60.13(d), the following procedures shall be used:

(1) Methods 6, 7, and 3B of appendix A of this part, as applicable, shall be used for the performance evaluations of $SO_2$and NO_X continuous monitoring systems. Acceptable alternative methods for Methods

6, 7, and 3B of appendix A of this part are given in §60.46(d).

(2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of appendix B to this part.

(3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent. For a continuous monitoring system measuring sulfur oxides or NO_X the span value shall be determined using one of the following procedures:

(i) Except as provided under paragraph (c)(3)(ii) of this section, $SO_2$and NO_X span values shall be determined as follows:

Fossil fuel	In parts per million	
	Span value for SO_2	**Span value for NO_X**
Gas	([1])	500.
Liquid	1,000	500.
Solid	1,500	1,000.
Combinations	1,000y + 1,500z	500 (x + y) + 1,000z.

[1]Not applicable.

Where:

x = Fraction of total heat input derived from gaseous fossil fuel;

y = Fraction of total heat input derived from liquid fossil fuel; and

z = Fraction of total heat input derived from solid fossil fuel.

(ii) As an alternative to meeting the requirements of paragraph (c)(3)(i) of this section, the owner or operator of an affected facility may elect to use the $SO_2$and NO_X span values determined according to sections 2.1.1 and 2.1.2 in appendix A to part 75 of this chapter.

(4) All span values computed under paragraph (c)(3)(i) of this section for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm. Span values that are computed under paragraph (c)(3)(ii) of this section shall be rounded off according to the applicable procedures in section 2 of appendix A to part 75 of this chapter.

(5) For a fossil-fuel-fired steam generator that simultaneously burns fossil fuel and nonfossil fuel, the span value of all CEMS shall be subject to the Administrator's approval.

(d) [Reserved]

(e) For any CEMS installed under paragraph (a) of this section, the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/MMBtu):

(1) When a CEMS for measuring $O_2$is selected, the measurement of the pollutant concentration and O_2concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the

Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where E, C, F, and $\%O_2$are determined under paragraph (f) of this section.

(2) When a CEMS for measuring $CO_2$is selected, the measurement of the pollutant concentration and CO_2concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where E, C, F_c and $\%CO_2$are determined under paragraph (f) of this section.

(f) The values used in the equations under paragraphs (e)(1) and (2) of this section are derived as follows:

(1) E = pollutant emissions, ng/J (lb/MMBtu).

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^4 M ng/dscm per ppm (2.59×10^{-9}M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for $SO_2$and 46.01 for NO_X.

(3) $\%O_2$, $\%CO_2$= O_2or CO_2volume (expressed as percent), determined with equipment specified under paragraph (a) of this section.

(4) F, F_c= a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of CO_2generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:

(i) For anthracite coal as classified according to ASTM D388 (incorporated by reference, see §60.17), F = $2,723 \times 10^{-17}$dscm/J (10,140 dscf/MMBtu) and F_c= 0.532×10^{-17}scm CO_2/J (1,980 scf CO_2/MMBtu).

(ii) For subbituminous and bituminous coal as classified according to ASTM D388 (incorporated by reference, see §60.17), F = 2.637×10^{-7}dscm/J (9,820 dscf/MMBtu) and F_c= 0.486×10^{-7}scm CO_2/J (1,810 scf CO_2/MMBtu).

(iii) For liquid fossil fuels including crude, residual, and distillate oils, F = 2.476×10^{-7}dscm/J (9,220 dscf/MMBtu) and F_c= 0.384×10^{-7}scm CO_2/J (1,430 scf CO_2/MMBtu).

(iv) For gaseous fossil fuels, F = 2.347×10^{-7}dscm/J (8,740 dscf/MMBtu). For natural gas, propane, and butane fuels, F_c= 0.279×10^{-7}scm CO_2/J (1,040 scf CO_2/MMBtu) for natural gas, 0.322×10^{-7}scm CO_2/J (1,200 scf CO_2/MMBtu) for propane, and 0.338×10^{-7}scm CO_2/J (1,260 scf CO_2/MMBtu) for butane.

(v) For bark F = 2.589×10^{-7}dscm/J (9,640 dscf/MMBtu) and F_c= 0.500×10^{-7}scm CO_2/J (1,840 scf CO_2/MMBtu). For wood residue other than bark F = 2.492×10^{-7}dscm/J (9,280 dscf/MMBtu) and F_c= 0.494×10^{-7}scm CO_2/J (1,860 scf CO_2/MMBtu).

(vi) For lignite coal as classified according to ASTM D388 (incorporated by reference, see §60.17), F = 2.659×10^{-7}dscm/J (9,900 dscf/MMBtu) and F_c= 0.516×10^{-7}scm CO_2/J (1,920 scf CO_2/MMBtu).

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/MMBtu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or Fc factor (scm CO_2/J, or scf CO_2/MMBtu) on either basis in lieu of the F or F_c factors specified in paragraph (f)(4) of this section:

$$F = 10^{-6}\,\frac{[227.2\,(\%H) + 95.5\,(\%C) + 35.6\,(\%S) + 8.7\,(\%N) - 28.7\,(\%O)]}{GCV}$$

$$F_c = \frac{2.0 \times 10^{-5}(\%C)}{GCV\ (SI\ units)}$$

$$F = 10^{-6}\,\frac{[3.64\,(\%H) + 1.53\,(\%C) + 0.57\,(\%S) + 0.14\,(\%N) - 0.46\,(\%O)]}{GCV\ (English\ units)}$$

$$F_c = \frac{20.0\,(\%C)}{GCV\ (SI\ units)}$$

$$F_c = \frac{321 \times 10^{3}\,(\%C)}{GCV\ (English\ units)}$$

(i) %H, %C, %S, %N, and %O are content by weight of hydrogen, carbon, sulfur, nitrogen, and O_2(expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D3178 or D3176 (solid fuels), or computed from results using ASTM D1137, D1945, or D1946 (gaseous fuels) as applicable. (These five methods are incorporated by reference, see §60.17.)

(ii) GVC is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015 or D5865 for solid fuels and D1826 for gaseous fuels as applicable. (These three methods are incorporated by reference, see §60.17.)

(iii) For affected facilities which fire both fossil fuels and nonfossil fuels, the F or Fc value shall be subject to the Administrator's approval.

(6) For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or Fc factors determined by paragraphs (f)(4) or (f)(5) of this section shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_i F_i \quad \text{or} \quad F_c = \sum_{i=1}^{n} X_i (F_c)_i$$

Where:

X_i= Fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.);

F_i or $(F_c)_i$= Applicable F or F_c factor for each fuel type determined in accordance with paragraphs (f)(4)

and (f)(5) of this section; and

n = Number of fuels being burned in combination.

(g) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) *Opacity* . Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(i) For sources subject to the opacity standard of §60.42(b)(1), excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 35 percent opacity, except that one six-minute average per hour of up to 42 percent opacity need not be reported.

(ii) For sources subject to the opacity standard of §60.42(b)(2), excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 32 percent opacity, except that one six-minute average per hour of up to 39 percent opacity need not be reported.

(2) *Sulfur dioxide* . Excess emissions for affected facilities are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2as measured by a CEMS exceed the applicable standard under §60.43, or

(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of SO_2as measured by a CEMS exceed the applicable standard under §60.43. Facilities complying with the 30-day SO_2standard shall use the most current associated SO_2compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part.

(3) *Nitrogen oxides* . Excess emissions for affected facilities using a CEMS for measuring $NO_X$are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under §60.44, or

(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of NO_X as measured by a CEMS exceed the applicable standard under §60.43. Facilities complying with the 30-day NO_X standard shall use the most current associated NO_X compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part.

(4) *Particulate matter* . Excess emissions for affected facilities using a CEMS for measuring PM are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards under §60.43. Affected facilities using PM CEMS in lieu of a CEMS for monitoring opacity emissions must follow the most current applicable compliance and monitoring provisions in §§60.48Da and 60.49Da of subpart Da of this part.

§ 60.46 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, and subsequent performance tests as requested by the EPA Administrator, the owner or operator shall use as reference methods and

procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (d) of this section.

(b) The owner or operator shall determine compliance with the PM, SO_2, and NO_X standards in §§60.42, 60.43, and 60.44 as follows:

(1) The emission rate (E) of PM, SO_2, or NO_X shall be computed for each run using the following equation:

$$E = CF_d\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where:

E = Emission rate of pollutant, ng/J (1b/million Btu);

C = Concentration of pollutant, ng/dscm (1b/dscf);

$\%O_2$ = O_2concentration, percent dry basis; and

F_d = Factor as determined from Method 19 of appendix A of this part.

(2) Method 5 of appendix A of this part shall be used to determine the PM concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and Method 5B of appendix A of this part shall be used to determine the PM concentration (C) after FGD systems.

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160±14 °C (320±25 °F).

(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2concentration ($\%O_2$). The O_2sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2concentration for the run shall be the arithmetic mean of the sample O_2concentrations at all traverse points.

(iii) If the particulate run has more than 12 traverse points, the O_2traverse points may be reduced to 12 provided that Method 1 of appendix A of this part is used to locate the 12 O_2traverse points.

(3) Method 9 of appendix A of this part and the procedures in §60.11 shall be used to determine opacity.

(4) Method 6 of appendix A of this part shall be used to determine the SO_2concentration.

(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(ii) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B of

appendix A of this part shall be used to determine the O_2concentration (%O_2). The O_2sample shall be taken simultaneously with, and at the same point as, the SO_2sample. The SO_2emission rate shall be computed for each pair of $SO_2$and O_2samples. The SO_2emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

(5) Method 7 of appendix A of this part shall be used to determine the NO_X concentration.

(i) The sampling site and location shall be the same as for the SO_2sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(ii) For each NO_X sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2concentration (%O_2). The sample shall be taken simultaneously with, and at the same point as, the NO_X sample.

(iii) The NO_X emission rate shall be computed for each pair of NO_X and O_2samples. The NO_X emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

(c) When combinations of fossil fuels or fossil fuel and wood residue are fired, the owner or operator (in order to compute the prorated standard as shown in §§60.43(b) and 60.44(b)) shall determine the percentage (w, x, y, or z) of the total heat input derived from each type of fuel as follows:

(1) The heat input rate of each fuel shall be determined by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned.

(2) ASTM Methods D2015, or D5865 (solid fuels), D240 (liquid fuels), or D1826 (gaseous fuels) (all of these methods are incorporated by reference, see §60.17) shall be used to determine the gross calorific values of the fuels. The method used to determine the calorific value of wood residue must be approved by the Administrator.

(3) Suitable methods shall be used to determine the rate of each fuel burned during each test period, and a material balance over the steam generating system shall be used to confirm the rate.

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

(1) The emission rate (E) of PM, $SO_2$and NO_X may be determined by using the Fc factor, provided that the following procedure is used:

(i) The emission rate (E) shall be computed using the following equation:

$$E = CF_c \left(\frac{100}{\%CO_2} \right)$$

Where:

E = Emission rate of pollutant, ng/J (lb/MMBtu);

C = Concentration of pollutant, ng/dscm (lb/dscf);

%CO_2= CO_2concentration, percent dry basis; and

F_c= Factor as determined in appropriate sections of Method 19 of appendix A of this part.

(ii) If and only if the average Fc factor in Method 19 of appendix A of this part is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B of appendix A of this part shall be used to determine the $O_2$and CO_2concentration according to the procedures in paragraph (b)(2)(ii), (4)(ii), or (5)(ii) of this section. Then if F_o (average of three runs), as calculated from the equation in Method 3B of appendix A of this part, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19 of appendix A of this part, *i.e.* , $F_{oa} = 0.209 (F_{da}/F_{ca})$, then the following procedure shall be followed:

(A) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.* , if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

(B) When F_o is less than 0.97 F_{oa} and when the average difference (d) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.* , if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(C) When F_o is greater than 1.03 F_{oa} and when the average difference d is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, *e.g.* , if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(2) For Method 5 or 5B of appendix A of this part, Method 17 of appendix A of this part may be used at facilities with or without wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 16 0 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used with Method 17 of appendix A of this part only if it is used after wet FGD systems. Method 17 of appendix A of this part shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.

(3) Particulate matter and SO_2may be determined simultaneously with the Method 5 of appendix A of this part train provided that the following changes are made:

(i) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 of appendix A of this part is used in place of the condenser (section 2.1.7) of Method 5 of appendix A of this part.

(ii) All applicable procedures in Method 8 of appendix A of this part for the determination of SO_2(including moisture) are used:

(4) For Method 6 of appendix A of this part, Method 6C of appendix A of this part may be used. Method 6A of appendix A of this part may also be used whenever Methods 6 and 3B of appendix A of this part data are specified to determine the SO_2emission rate, under the conditions in paragraph (d)(1) of this section.

(5) For Method 7 of appendix A of this part, Method 7A, 7C, 7D, or 7E of appendix A of this part may be used. If Method 7C, 7D, or 7E of appendix A of this part is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O_2concentration ($\%O_2$) for the emission rate correction factor.

(6) For Method 3 of appendix A of this part, Method 3A or 3B of appendix A of this part may be used.

(7) For Method 3B of appendix A of this part, Method 3A of appendix A of this part may be used.

Attachment D
Standards of Performance for Nonmetallic Mineral Processing Plants
[40 CFR Part 60, Subpart OOO]

NSPS 40 CFR Part 60, Subpart OOO

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; and stand-alone screening operations at plants without crushers or grinding mills.

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

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

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

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

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

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

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

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

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or

modification after August 31, 1983 is subject to the requirements of this part.

(f) table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

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

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

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

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

Building means any frame structure with a roof.

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

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

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

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

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

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

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

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

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

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

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

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

(b) Sand and Gravel.

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

(d) Rock Salt.

(e) Gypsum.

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

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

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

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

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

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

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

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

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

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

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

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

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

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

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

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

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

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

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

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

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

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

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

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

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

year period following August 31, 1983.

§ 60.674 Monitoring of operations.

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

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

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

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

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

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

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

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

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

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

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

the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

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

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

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

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

(2) For a screening operation:

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

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

(3) For a conveyor belt:

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

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

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

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

(b) [Reserved]

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

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

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

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with

§60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

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

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

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

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

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	**Indianapolis Power and Light - Petersburg Gen. Station**
Source Location:	**6925 N State Road 57, Petersburg, Indiana 47567**
County:	**Pike**
SIC Code:	**4911**
Permit Renewal No.:	**T125-30045-00002**
Permit Reviewer:	**David Matousek/Josiah Balogun**

On July 20, 2011, the Office of Air Quality (OAQ) had a notice published in the Press-Dispatch, Petersburg, Indiana 47567, stating that the Indiana Department of Environmental Management (IDEM) had received an application from Indianapolis Power and Light - Petersburg Generating Station located at 6925 N State Road 57, Petersburg, Indiana 47567, for a renewal of their Part 70 Operating Permit Title V issued on October 4, 2006. The notice also stated that the OAQ proposed to issue a Part 70 Operating Permit Title V Renewal 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.

Public Comments and IDEM's Responses

On August 15, 2011, Nachy Kanfer, Campaign Representative, Midwest States Sierra Club, Beyond Coal Campaign, submitted comments on behalf of the Sierra Club. IDEM has summarized each comment and has provided responses below.

If the comment resulted in a change to the draft permit or emission calculations, the change is shown in bold and ~~strikeout~~ immediately after the comment.

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 period are documented in this Addendum to the Technical Support Document (ATSD). This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment #1 The Permit does not protect the public from violations of ambient air quality standards. Pursuant to Indiana Law, 326 IAC 2-1.1-5, IDEM may not issue a permit where it is determined that "the terms and conditions of the permit... would allow a source to cause or contribute to a violation of the National Air Quality Standards (NAAQS)." Based on our review of the permit materials, it does not appear that IDEM made any determinations of whether the Petersburg Generating Station will cause or contribute to violations of the NAAQS. The Sierra Club has retained an expert in the field of air dispersion modeling to conduct an analysis of the 1-hour SO2, 1-hour NOx and the 24-hour PM2.5 NAAQS. Our modeling indicates the Petersburg Generating Station will contribute to violations of all three NAAQS if emission limits well below historic emission rates are not included in the permit.

IDEM Response

326 IAC 2-1.1-5, an Indiana-only requirement that has not been incorporated into Indiana's State Implementation Plan ("SIP"), states that:

(a) The commissioner shall not issue a registration, permit, modification approval, or operating permit revision under this article if the commissioner determines the terms and conditions of the registration, permit, modification approval, or operating permit revision:

(1) would allow a source to cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS)[.]" …

The general provisions at 326 IAC 2-1.1 provide a road map for specific air permitting requirements located in other rules in Article 2 for construction, operation, and modification of sources. The basis for the requirements in 326 IAC 2-1.1-5 are from IDEM's original air permit construction rules that were approved into Indiana's state implementation plan (SIP). Historically, these rules applied only to construction permits. the rules were recodified in 326 IAC 2-1.1-5

In addition, statutes and regulations should not be construed as stand-alone provisions, independent of the context created by the statutes or regulations in which they are grouped. *Fuller v. State*, 752 N.E.2d 235, 238 (Ind. Ct. App. 2001) ("Statutes relating to the same general subject matter are *in pari materia* and should be construed together so as to produce a harmonious statutory scheme."); *Centre Properties v. DNR, In re Hoosier Environmental Council*, 10 CADDNAR 49 (March 24, 2005); *see also Miller Brewing Co. v. Bartholomew County Beverage Cos., Inc.*, 674 N.E.2d 193 (Ind. Ct. App. 1996) (canons of construction apply in the same manner to both statutes and rules.).

Accordingly, 326 IAC 2-1.1-5 cannot be read in isolation from the other applicable IDEM permitting rules. Most importantly, 326 IAC 2-1.1-5's application is limited by 326 IAC 2-1.1-2, which states:
"(a) This rule [326 IAC 2-1.1 *et seq.*] applies to the issuance of a registration, permit, modification approval, or operating permit revision required under this article [326 IAC Article 2] and the sources or emissions units required to obtain a registration, permit, modification approval, or operating permit revision under this article, <u>except where rules in this article establish more specific requirements</u>." (emphasis added). The express terms of 326 IAC 2-1.1-2 codify the statutory construction canon that a specific requirement takes priority over a general requirement. *Sanders v. State* (Ind.1984), 466 N.E.2d 424, 428. The plain language of 326 IAC 2-1.1-2 limits the application of the provisions of 326 IAC 2-1.1 (including Section 5) to instances where there are no other "more specific requirements" that apply to the issuance of a permit or – as construed by the OEA – a renewal permit. Thus, harmonizing 326 IAC 2-1.1-2 with 326 IAC 2-1.1-5 requires examining whether there are any more specific terms in 326 IAC Article 2 that address the requirement of compliance with NAAQS as a precondition to the issuance of a permit.

Several rules contained in 326 IAC Article 2 provide more specific requirements than does 326 IAC 2-1.1-5 detailing the considerations IDEM must make when issuing a Part 70 Operating Permit or a renewal of such a permit. As an initial matter, 326 IAC 2-7 addresses every aspect of a Part 70 Operating permit, and any provision of this rule is more specific than 326 IAC 2-1.1-5's general applicability to a "permit." Of particular relevance, 326 IAC 2-7-8 explicitly establishes the sole conditions that dictate whether a "Part 70 permit … or renewal may be issued" by IDEM, and thereby directly overrules the general requirements of 326 IAC 2-1.1-5. These preconditions to Part 70 permit issuance, in brief, are limited to whether IDEM has received a complete

application, whether proper public notice procedures have been followed, and whether the conditions of the permit "provide for compliance with all applicable requirements and the requirements of [326 IAC 2-7]." 326 IAC 2-7-8(a).

The more limited discretion specified by these rules to IDEM's issuance of a Part 70 permit (or renewal) instead of the more general requirements of 326 IAC 2-1.1-5 is not an accident. Part 70 operating permits were never intended to place new substantive requirements on a source. This is because all major stationary sources of air pollution are required to apply for Part 70 operating permits that include emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable State Implementation Plan (SIP). 326 IAC 2-7-5(1)(A) ("The Part 70 permit shall: (i) specify and reference the origin of and authority for each term or condition; and (ii) identify any difference in form as compared to the applicable requirement upon which the term or condition is based."); *see also* 42 U.S.C. §§ 7661a(a), 7661c(a). The Part 70 operating permit program does not generally impose new substantive air quality control requirements, referred to as "applicable requirements," because the entire Part 70 permitting program is based on the principle that a Part 70 permit simply gathers a source's applicable requirements in one place/permit. 57 Fed. Reg. 32,250, 32,250-51 (July 21, 1992).

"More specific" requirements can also be found in the rules that dictate the treatment of construction and modifications made to major stationary sources; it is these rules, also located in Article 2, that protect Indiana's compliance with and maintenance of the NAAQS and ensure that no source may "cause or contribute to a violation of the" NAAQS. 326 IAC 2-2 *et seq*. and 326 IAC 2-3 *et seq*. describe the manner by which IDEM permits these projects both in counties that are attainment or unclassifiable for the NAAQS and counties that are nonattainment with the NAAQS, respectively. 326 IAC 2-2-5(a)(1) requires that "[t]he … proposed major stationary source or major modification shall demonstrate that allowable emissions …will not cause or contribute to air pollution in violation of any … ambient air quality standard…[.]" 326 IAC 2-3 *et seq* details a more complex set of requirements for ensuring that proposed construction or modifications made to major stationary sources will not "cause or contribute to a violation of the" NAAQS. *See, e.g.,* 326 IAC 2-3-3(a)(2) (requiring LAER technology) and (5) (requiring emissions offsets). These more complicated mechanisms are required because, by design, 326 IAC 2-3 *et seq*. applies to the projects completed in a county that is already in nonattainment with the NAAQS. 326 IAC 2-3-2(a). IDEM's specific rules regarding these projects would be meaningless if IDEM were to apply unquestioningly 326 IAC 2-1.1-5's general requirements to sources, the blind application of 326 IAC 2-1.1-5 to "permits" is especially nonsensical when considering construction projects in nonattainment counties.

IDEM's permitting process only requires an air quality analysis demonstrating compliance by a source with a newly established NAAQS (such as the SO_2 or NO_2 1-hour standards referenced in the comment) at the issuance of a PSD permit for construction of a major source or major modification causing significant net emissions of the pollutant that is the subject of the new NAAQS. This position is consistent with the manner in which the U.S. EPA has interpreted the Clean Air Act and federal PSD regulations, requiring "that each final PSD permit decision reflect consideration of any NAAQS that is in effect at the time the permitting authority issues a final permit." *See* the memorandum dated April 1, 2010, from Stephen D. Page, Director, OAQPS, entitled, "Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised

National Ambient Air Quality Standards" ("Page Memorandum"). Because the IPL Petersburg Generating Station is not proposing any modifications to its facilities or operating conditions in this renewal permit, there is no basis for IDEM to question whether issuance of the renewal permit might "cause or contribute to a violation of the" NAAQS. Therefore, even applying 326 IAC 2-1.1-5 to the instant renewal permit, IDEM's decision to issue the permit complies with the rule's requirements because, as this permitting action does not include any triggering event that would require a determination of the power plant's contributions to NAAQS attainment and maintenance, IDEM's issuance of the permit will not cause or contribute to a violation of the NAAQS.

The comment also suggests that the power plant should be subject to the revised SO_2 and NO_2 NAAQS. As explained in detail above, IDEM is not required to consider these new NAAQS in its issuance of this renewal permit under a correct application of either 326 IAC 2-1.1 *et seq.* or 326 IAC 2-1.1-5. Moreover, neither of the new 1-hour standards for NO_2 and SO_2 imposed requirements to the source at the time of the issuance of this renewal permit. The 1-hour standard for NO_2 became effective on April 12, 2010 (75 Fed. Reg. 6,474) and the 1-hour standard for SO_2 became effective on August 23, 2010 (75 Fed. Reg. 35,520). IDEM only applies federally promulgated NAAQS to its PSD evaluations after their effectiveness. Page Memo at 3 (observing that the 1-hour standard for NO2's effective date as April 12, 2012, EPA states that only permits issued "on or after April 12, 2010, must contain a demonstration that the source's allowable emissions will not cause or contribute to a violation or the new 1-hour NO_2 NAAQS."). There are no applicable requirements related to these NAAQS that could be appropriately incorporated into Title V renewal permit for the source.

No changes to the draft permit are required as a result of this comment.

Comment #2

The permit lacks applicable requirements that apply because the boilers have been modified. Indianapolis Power & Light - Petersburg Generating Station, Unit 1, Unit 2, Unit 3 and Unit 4 underwent major modifications under the Prevention of Significant Deterioration (PSD) program that required Best Available Control Technology (BACT) review and BACT limits. BACT limits are applicable requirements and must be included in the renewal operating permit for the Petersburg Generating Station. The following major modifications under the PSD program were conducted without a BACT review:

1) Unit 1 - The superheat pendent platen assemblies and front reheat assemblies were replaced in 1991.
2) Unit 2 - The economizer and soot blowers were replaced in 1986.
3) Unit 2 - The lower slope tubes and west countant tubes were upgraded in 2003.
4) Unit 3 - The combustion heaters were replaced in 1993.
5) Unit 3 - The reheater was replaced in 2004.
6) Unit 4 - The economizer and front reheat pendants were replaced in 2001.

IDEM Response

IDEM and/or the U.S. EPA have not resolved any alleged PSD violations related to the modifications of the boilers. The U.S. EPA's Enforcement & Compliance History Online (ECHO) and IDEM records show violations of the Clean Air Act dating back to May 11, 2007. Five of the violations were related to the late submittal of the Annual Compliance Certification form. One violation involved 326 IAC 3-5-1, continuous operation of a continuous opacity monitor (COM). In May 2007, IDEM identified the COM on boiler Unit 2 was out of service for 107.8 hrs in a 1,644.25 hr period (a 6.56% downtime rate). Since no alleged violations of the

PSD requirements of the Clean Air Act have been resolved, additional BACT and/or LAER conditions are not required for any of the boilers at this source. If future litigation proves the Sierra Club's allegations, IDEM will respond as necessary to implement the decision of the court. In regards to the existing PSD BACT limits, IDEM does not update PSD BACT limits until the unit in question undergoes a modification requiring a new PSD BACT review. PSD BACT conditions are intended to reflect the best available control available at the time of review. PSD BACT conditions are not intended to be living conditions that are updated on a regular basis.

No changes to the draft permit are required as a result of this comment.

Comment #3

The permit cannot be issued because the facility has not submitted a compliance schedule. In accordance with 40 CFR 70.5(c)(8), (9), a compliance certification and compliance schedule is required with the application for every major stationary source.

IDEM Response

IDEM had sufficient information to evaluate the source and to determine all applicable requirements. The Petersburg Generating Station is required to submit an annual compliance certification in accordance with 326 IAC 2-7-6(5). This certification covers the period between January 1 and December 31 of each year and addresses the status of the source's compliance with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The Petersburg Generating Station submitted Annual Compliance Certifications on May 5, 2010, March 18, 2011 and June 26, 2012. A compliance schedule was not required to prepare the draft Part 70 Operating Permit Renewal because there is no ongoing permit violation that would require a compliance schedule. As set out in the IDEM Response to Comment 2, above, the source's alleged violations are not continuing violations. The source is able to comply with the permit terms and conditions.

No changes to the draft permit are required as a result of this comment.

Comment #4

The permit contains insufficient monitoring to meet the requirements of 40 CFR 70. Title V and its implementing regulations require IDEM to include terms, test methods, units, averaging periods and other statistical conventions consistent with the applicable requirement, for the relevant time period, that are sufficient to assure compliance. There is no continuous, direct, monitoring of particulate matter emissions from the Petersburg Generating Station boilers. IDEM is relying on a stack test every 24 months to show compliance with the particulate matter limits. The CAM plan for the boilers requires infrequent monitoring of parameters without a direct connection to an emission rate. At a minimum, the permit must establish monitoring that assures compliance with the particulate matter limits during all periods of operation (including startup and shutdown, which are not exempt from the particulate matter limits). IDEM must set specific parameter ranges that show compliance and non-compliance.

Monitoring for the coal handling facilities in Section D.3 and other emission units in Section D.4 are inadequate. These units are subject to specific mass emission limits but sufficient monitoring is not provided. At most, the permit requires visible emission notations during daylight hours for comparison to normal conditions. This is especially concerning given that IDEM is estimating control efficiencies for these units in the range of 50% to 95%. Such control efficiencies have no basis in the record, and are highly unlikely to be achieved during all hours of operation.

IDEM Response

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.

The boilers at the Petersburg Generating Station are not equipped with a particulate matter continuous emissions monitoring system (PM CEMS). However, the boilers are equipped with a continuous opacity monitor (COM) and an SO2 continuous emissions monitoring system (SO2 CEMS). The compliance determination and compliance monitoring conditions for particulate matter contained in the permit include:

<u>Unit 1, Unit 2, Unit 3 and Unit 4</u>

(a) The electrostatic precipitators (ESP) must be in use at all times the coal-fired boilers are in operation, unless otherwise provided in statute or rule.

(b) The ESP is monitored once per day by measuring and recording the number of transformer-rectifier (T-R) sets in service along with the primary and secondary voltages and currents for each T-R set.

(c) Unit 1, Unit 2, Unit 3 and Unit 4 are tested for PM every two years.

(d) The COMs must be in operation at all times Unit 1, Unit 2, Unit 3 and Unit 4 are in operation.

Guidance documents from the U.S. EPA indicate the most common performance indicators of an electrostatic precipitator are: outlet particulate matter concentration, opacity, primary and secondary corona power (primary and secondary current and voltage), spark rate, inlet gas temperature, gas flow rate, rapper operation, number of fields in operation, inlet water flow rate (Wet ESPs) and flush water solids content (Wet ESPs). IDEM chose to use primary and secondary corona powers and the number of fields in operation for compliance monitoring requirements. The exact values used to determine compliance and noncompliance are determined every two years during the compliance stack test. The compliant and noncompliant values of the compliance monitoring indicators are not included in the permit because they may change during the life of the permit and IDEM wishes to minimize unnecessary permit modifications. The compliance monitoring and compliance

demonstration methods proposed in this Part 70 Operating Permit Renewal are similar to other units operating in the State of Indiana and are the most widely accepted and cost effective methods of ensuring continuous compliance with the particulate matter limitations for these units.

The coal handling facilities contained in Section D.3 of the Part 70 Operating Permit Renewal are subject to both compliance determination and compliance monitoring requirements to ensure compliance with the 326 IAC 6-3-2 particulate matter emission limitations for manufacturing processes. The Permittee is required to ensure the enclosures for PB-45 (System A) and PB-48 (System B) are in place and controlling emissions from these facilities at all times they are in operation. In addition, the Permitee is required to perform visible emission notations of the unenclosed coal and limestone transfer points.

Continuous measurement of particulate matter emissions from these units is not cost effective or practical. IDEM used the best information available to quantify particulate matter emissions from these units; however, this information is not perfect. IDEM used a conservative moisture content and conveyor speed and did not apply a reduction for emission controls. The requirements for compliance monitoring and compliance determination are overly conservative for these emission units considering the conservative approach to emission estimation.

The limestone, fly ash and gypsum handling facilities contained in Section D.4 are required to:

(a) Comply with NSPS, 40 CFR 60, Subpart OOO for PB-65.

(b) Perform weekly visible emission notations and pressure drop readings of the baghouses controlling emissions from the storage silos.

(c) Comply with the Fugitive Dust Control Plan.

Again, IDEM used the best information available to quantify particulate matter emissions from these units. The use of VE notations and pressure drop readings for monitoring particulate matter emissions from baghouses is common practice. So is the use of a fugitive dust control plan for a compliance determination condition for fugitive sources. The compliance monitoring and compliance determination requirements included in the draft permit are the most practical and cost effective to ensure compliance with particulate matter limitations.

Comment #5

The Temporary Alternative Opacity Limits are unlawful. The application for the operating permit renewal submitted by Petersburg Generating Station contains no discussion of the need for an alternative permit limit. The conditions in the Alternative Opacity Limit provide that opacity exceedances are not violations during specified conditions, but do not incorporate permit conditions that are necessary for safe and proper operation of equipment and minimize the duration and extent of excess emissions. The Permittee must be required to keep records of times of startups, shutdowns and ash removals in accordance with 326 IAC 5-1-3(e). The Permittee must be required to monitor and report the temperature at the inlet to the electrostatic precipitator (ESP) because the alternative limits only apply during a predetermined temperature condition in the ESP.

IDEM Response The temporary alternative opacity limitations (TAOL) were included in the permit because they are an applicable requirement. The temporary alternative opacity limitations are lawful and are included in 326 IAC 5-1-3. IDEM has no reason to believe the TAOL requirements are no longer applicable to this source and should be removed. In accordance with 326 IAC 5-1-3(c), the Commissioner may require a source to install a certified opacity emissions monitor, operate the certified opacity emissions monitor in accordance with procedures specified in 326 IAC 3, and maintain other records needed to verify compliance with the temporary alternative opacity limitation. The Petersburg Generating Station has COMs installed on Unit 1, Unit 2, Unit 3 and Unit 4 to ensure compliance with the TAOL in 326 IAC 5-1-3. IDEM uses COM data, along with the corresponding boiler operating conditions to ensure the source is in compliance with the requirements of 326 IAC 5-1-3.

No changes to the draft permit are required as a result of this comment.

Comment #6 The Clean Air Interstate Rule (CAIR) provisions must be replaced with the Cross State Air Pollution Rule (CSAPR) requirements. The CAIR requirements have been replaced and beginning in 2012, the source is subject to CSAPR.

IDEM Response On July 6, 2011, the U.S. EPA finalized a rule that helps states reduce air pollution and attain clean air standards. This rule, known as the Cross-State Air Pollution Rule (CSAPR), requires states to significantly improve air quality by reducing power plant emissions that contribute to ozone and fine particle pollution. In December 2008, a court decision kept the requirements of CAIR in place temporarily but directed EPA to issue a new rule (the Cross-State Air Pollution Rule) to implement Clean Air Act requirements concerning the transport of air pollution across state boundaries. On August 21, 2012, the United State Court of Appeals for the District of Columbia Circuit issued a ruling vacating the CSAPR (opinion is at http://www.cadc.uscourts.gov/internet/opinions.nsf/19346B280C78405C85257A61004DC0E5/$file/11-1302-1390314.pdf on the Internet). On January 24, 2013 the same court denied all the petitions for rehearing en banc (USCA Case#11-1302, Document #1350421). Pending further judicial review, the requirements of CSAPR are not included in this permit.

Other Changes

Upon further review IDEM, OAQ has made the following changes to the Title V permit T125-30045-00002. (deleted language appears as ~~strikout~~ and the new language **bolded**):

Modification Added to the permit through SPM No. 125-32193-00002, issued on May 3, 2012;

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):

.....

(e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

.....

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]: Insignificant Activities

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

(e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

(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 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

D.8.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ, which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6612
(8) 40 CFR 63.6620
(9) 40 CFR 63.6625(e),(f),(h),(i)
(10) 40 CFR 63.6640(a),(b),(e),(f)
(11) 40 CFR 63.6645(a)(5)
(12) 40 CFR 63.6650(a),(b)(1)-(5),(c),(d),(e),(f)
(13) 40 CFR 63.6655(a)(1),(2),(4),(b),(d),(e),(f)(1)
(14) 40 CFR 63.6660
(15) 40 CFR 63.6665
(16) 40 CFR 63.6670
(17) 40 CFR 63.6675
(18) Table 2c(1), 6(9), 7(a) and 8.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

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

Source Address:	6925 N. State Road 57, Petersburg, Indiana 47567
Mailing Address:	P.O.Box 436, Petersburg, Indiana 46567
General Source Phone Number:	(812) 354-8801
SIC Code:	4911
County Location:	Pike
Source Location Status:	~~Nonattainment~~**Attainment** for $PM_{2.5}$ standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD ~~and Nonattainment NSR~~ Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Modification Added to the permit through SPM No. 125-32836-00002, issued on May 28, 2013;

Change No. 1: Section A.2 of the permit is modified as follows:

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:

****

(l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of ~~305.4~~ **305.6** tons per hour, consisting of the following operations:

****

(p) Activated Carbon Injection Systems, consisting of the following operations:

(1) One (1) activated carbon injection silo, serving unit 1, identified as ACI-1, planned to be constructed in 2013, with a maximum storage capacity of 160 tons, and a maximum throughput of 650 lbs/hr, controlled by a bin vent filter.

(2) One (1) activated carbon injection silo, serving unit 2, identified as ACI-2, planned to be constructed in 2014, with a maximum storage capacity of 230 tons, and a maximum throughput of 1,225 lbs/hr, controlled by a bin vent filter.

(3) One (1) activated carbon injection silo, serving unit 3, identified as ACI-3, planned to be constructed in 2014, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,637 lbs/hr, controlled by a bin vent filter.

(4) One (1) activated carbon injection silo, serving unit 4, identified as ACI-4, planned to be constructed in 2014, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,640 lbs/hr, controlled by a bin vent filter.

Change No. 2: Section A.3 of the permit is modified as follows:

****

(c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NO_X; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5];

(2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5]; and

(3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2]

****

Change No. 3: Section D.4 of the permit is modified as follows:

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Limestone/Fly Ash/Gypsum Handling Facilities

****

(l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of ~~305.4~~ **305.6** tons per hour, consisting of the following operations:

****

Change No. 4: Condition D.4.3 of the permit is modified as follows:

D.4.3 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall control fugitive dust on paved roads by wetting or flushing with a watering truck or cleaning with a vacuum-sweeper on an as needed basis as specified in the Fugitive Dust Control Plan in Attachment ~~D~~**B**.

Therefore, the emissions from the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) and the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4, are limited to less than 25 tons/yr for PM, and the requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) nor the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4.

Further, the emissions from the modification (SSM 125-32721-00002), approved in 2013 (installation of ACI Systems, Sorbent Unloading associated with SBS Systems, and increased Ash handling emissions) are limited to less than 25 tons per year for PM, less than 15 tons per year for PM10 and less than 10 tons per year for PM2.5. The requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-32721-00002).

Change No. 5: Section D.5 of the permit is modified as follows:

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

****

(c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NO_X; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5].

(3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2].

****

****

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

D.9.1 PSD Minor Limits [326 IAC 2-2]

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

Unit Description	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	PM2.5 Limit (lbs/hr)
ACI-1, ACI-2, ACI-3 & ACI-4	0.12	0.06	0.06

Compliance with these emission limits and Condition D.4.3 together with the projected emissions increase from existing boilers, paved roads and fly ash handling will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM_{10} per year and less than ten (10) tons of PM2.5 per year and therefore will render the requirements of 326 IAC 2-2 not applicable to the 2013 modification.

D.9.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emission rate from the Activated Carbon Injection Systems and Sorbent Unloading operations shall not exceed the emission limits listed in the table below:

Unit Description	Max. Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)
ACI-1	0.325	1.93
ACI-2	0.6125	2.95
ACI-3	0.8185	3.59
ACI-4	0.82	3.59

The emission limits above were calculated using the equation below:

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

Compliance Determination Requirements

D.9.3 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with the particulate matter emissions limits specified in Condition D.9.1 silo bin vent filters shall in operation and controlling emissions whenever the equipment is in operation and venting to the control device.

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

D.9.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Visible emission notations of the activated carbon injection silos identified as ACI-1, ACI-2, ACI-3 and ACI-4 shall be performed once per week during normal daylight operations

when the equipment is in operation. A trained employee shall record whether emissions are normal or abnormal.

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

D.9.5 Record Keeping Requirements

To document the compliance status with Condition D.9.4- Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations from Activated Carbon injection system identified as ACI-1, ACI-2, ACI-3, and ACI-4. 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).

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Josiah Balogun at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-5257) or toll free at 1-800-451-6027 extension (4-5257).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Indianapolis Power and Light - Petersburg Generating Station
Source Location:	6925 N State Road 57, Petersburg, Indiana 47567
County:	Pike
SIC Code:	4911
Permit Renewal No.:	T125-30045-00002
Permit Reviewer:	David Matousek

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Indianapolis Power and Light - Petersburg Generating Station relating to the operation of a stationary electric utility generating station. On December 22, 2010, Indianapolis Power and Light - Petersburg Generating Station submitted an application to the OAQ requesting to renew its operating permit. Indianapolis Power and Light - Petersburg Generating Station was issued its first Part 70 Operating Permit T125-6565-00002 on October 4, 2006.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, and low NO_X burner (installed in 1995) for NO_X reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator, FGD scrubber (installed in 1996), and selective catalytic reduction (installed in 2004) as control, and low NO_X burner for NO_X reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X), sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, and low NO_X burner (installed in 2001) for NO_X reduction, and exhausts to stack 4-1. Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_X) and sulfur dioxide (SO_2) and carbon dioxide (CO_2) and a continuous opacity monitor (COM).

(e) One (1) emergency diesel internal combustion engine/generator, identified as PB-2, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB2-1.

(f) One (1) emergency diesel internal combustion engine/generator, identified as PB-3, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB3-1.

(g) One (1) emergency diesel internal combustion engine/generator, identified as PB-4, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB4-1.

(h) Coal handling facility, identified as PB-45 "System A", constructed in 1963, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.

(2) Move bulk materials - haul trucks, loaders, bulldozers, other heavy mobile equipment, etc.

(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.

(4) Enclosures at drop points.

(5) Coal crushing with enclosures.

(6) Free fall from overhead conveyor to outside pile.

(7) Outside storage pile.

(8) Reclaiming and loading.

(9) Truck hauling on paved and unpaved roads.

(i) Coal and limestone handling facility, identified as PB-48 “System B,” constructed in 1973, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:

(1) Train and truck unloading.

(2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.

(3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.

(4) Enclosures at drop points.

(5) Coal crushing with enclosures.

(6) Limestone wet ball mill.

(7) Outside storage pile.

(8) Reclaiming and loading.

(9) Truck hauling on paved and unpaved roads.

(j) Limestone handling facility, identified as PB-65, constructed in 1993 and modified in 2009, with a maximum throughput of 137.7 tons per hour, consisting of the following operations:

(1) Truck unloading.

(2) Move bulk materials - haul trucks, dozers, front end loaders, other heavy mobile equipment, etc.

(3) Outside storage pile.

(4) Reclaiming and loading.

(5) Transfer - hoppers, feeders, conveyors, silos, etc.

(6) Enclosures at drop points.

(7) Baghouses on the silos.

(8) Limestone wet ball mills.

(9) Truck hauling on paved and unpaved roads.

(k) FGD sludge (gypsum) handling facility, identified as PB-67, constructed in 1993 and modified in 2009, with a maximum throughput of 300.2 tons per hour, consisting of the following operations:

(1) Wet handling to dewatering process.

(2) Transfer - hoppers, feeders, conveyors, etc.

(3) Enclosures at drop points.

(4) Free fall from overhead conveyors to inside piles.

(5) Inside and outside storage piles.

(6) Loading.

(7) Move bulk materials - haul trucks, front end loader, other heavy mobile equipment, etc.

(8) Truck hauling on paved and unpaved roads.

(l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of 305.4 tons per hour, consisting of the following operations:

(1) Move bulk materials - haul trucks, front end loader, bulldozer, excavating, dredging, other heavy mobile equipment, etc.

(2) Transfer - silos, hoppers, feeders, conveyors, day tanks with baghouses, pugmill mixers with dust collectors, etc.

(3) Enclosures at drop points.

(4) Conveying dry fly ash to silos with baghouses.

(5) Wet process ash handling from Units 3 and 4 to ash pond and/or dewatering bins.

(6) Wet process ash handling from Units 1 and 2 to ash ponds.

(7) Free fall from overhead conveyor to outside pile.

(8) Outside storage pile.

(9) Existing ash pond disposal facilities.

(10) Landfill disposal facilities for Coal Combustion Products.

(11) Truck and tanker loading.

(12) Truck unloading.

(13) Truck hauling on paved and unpaved roads.

(m) One (1) fly ash railcar loading operation, identified as BH-N, constructed in 2005, with a maximum throughput rate of 37.5 tons of fly ash per hour, controlled by a baghouse, and exhausting through stack 101.

(n) One (1) fly ash railcar loading operation from Ash Silo 3, constructed in 2005, with a maximum throughput rate of 200 tons of fly ash per hour, with an enclosed drop from Silo 3 to an air-fluidized enclosed loadout slide from the silo and a gasket drop to enclosed railroad cars, controlled by baghouse B-11, and exhausting through stack 11.

(o) One (1) Cooling Tower associated with Unit 4, identified as CT-4, permitted in 2011, with a capacity of 224,939 gallons circulating water per minute and a maximum drift rate of 0.001%.

Insignificant Activities

The source also consists of the following specifically regulated insignificant activities:

(a) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-3-2]

(b) Vents from transport systems associated with the handling of various materials including but not limited to vacuum pumps associated with respective operations. [326 IAC 6-3-2]

(c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NO_X; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5];

(2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5]; and

(3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].

(d) Truck hauling on paved and unpaved roads. [326 IAC 6-4] [326 IAC 6-5]

Existing Approvals

The source submitted an application for a Part 70 Operating Permit Renewal on December 22, 2010. At this time, this application is still under review. The source is operating under the following approvals:

(a) Part 70 Operating Permit No. T 125-6565-00002, issued on October 4, 2006;

(b) Significant Source Modification No. 125-26913-00002, issued on December 23, 2008;

(c) Significant Permit Modification No. 125-26934-00002, issued on January 8, 2009;

(d) Significant Permit Modification No. 125-26306-00002, issued on May 7, 2009;

(e) Minor Source Modification No. 125-29977-00002, issued on February 28, 2011; and

(f) Significant Permit Modification No. 125-29988-00002, issued on May 2, 2011.

Enforcement Issue

IDEM is aware that there is a pending federal enforcement action for violations of Prevention of Significant Deterioration (PSD) requirements. IDEM is reviewing this matter and will take the appropriate action.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Pike County.

Table 1: County Attainment Status

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

Basic nonattainment designation effective federally April 5, 2005, for the Washington Twp for $PM_{2.5}$.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Pike County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Pike County, Washington Township, as nonattainment for $PM_{2.5}$. 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 $PM_{2.5}$ promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct $PM_{2.5}$ and SO_2 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) Pike County has been classified as attainment or unclassifiable for PM_{10}, SO_2, NO_2, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Since this source is classified as a fossil fuel-fired steam electric plant of more than 250 MMBtu/hr heat input, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

Fugitive Emissions

Since this source is classified as a fossil fuel-fired steam electric plant of more than 250 MMBtu/hr heat input, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	529,878
PM_{10}	122,470
$PM_{2.5}$	33,088
SO_2	924,928
VOC	288.07
CO	2,745
NO_x	71,657
GHGs	> 100,000
Single HAP	> 10
Total HAP	> 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM_{10}, $PM_{2.5}$, SO_2, VOC, CO and NO_X are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	GHGs (TPY CO_2e)	Total HAPs	Single HAP
Boiler / Unit 1	7,709	15,237	3,975	57,816	9,034	36.14	344.14	2,912,207	820.4	722.70
Boiler / Unit 2	8,348	28,701	7,487	108,904	17,016	68.07	648.24	5,485,715	1,545	1,361
Boiler / Unit 3	2,427	38,369	10,009	29,118	16,986	90.99	866.61	7,333,517	2,066	1,820
Boiler / Unit 4	2,431	38,439	10,027	29,171	17,016	91.16	868.18	7,346,994	2,070	1,823
Emerg Gen/PB-2	0.5	0.4	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Emerg Gen/PB-3	0.5	0.4	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Emerg Gen/PB-4	0.5	0.4	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Limestone, Gypsum and Coal Handling	117.33	55.52	8.60	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	**PM10***	**PM2.5****	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs (TPY CO_2e)**	**Total HAPs**	**Single HAP**
Fly Ash Handling	49.80	29.78	29.78	0.0	0.0	0.0	0.0	0.0	0.154	0.041
Coal Storage	13.94	6.97	1.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cooling Tower	9.86	8.38	8.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paved Roads	264.12	53.22	12.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total PTE of Entire Source	**21,372**	**120,901**	**31,560**	**225,015**	**60,120**	**288**	**2,745**	**> 100,000**	**> 25**	**> 10**
Title V Major Source Thresholds	100	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	100	100	NA	NA	100	100	100	100,000	NA	NA
NA-NSR Major Source Thresholds	NA	NA	100	100	NA	NA	NA	NA	NA	NA

negl. = negligible; *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, emissions of GHGs are equal to or greater than one hundred thousand (>100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is in one of the twenty-eight (28) listed source categories.

(b) This existing stationary source is major for Nonattainment NSR because the emissions of the nonattainment pollutant $PM_{2.5}$ and SO_2, are greater than one hundred (>100) tons per year.

Federal Rule Applicability

CAM

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets 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 existing emission unit and specified pollutant subject to CAM:

CAM Analysis - PM10 / PM / PM2.5

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)
Boiler Unit 1 PM10	Y	N	15,237	15,237	100	N	N
Boiler Unit 1 PM2.5	Y	N	3,975	3,975	100	N	N
Boiler Unit 1 PM	Y	Y	66,248	7,709	100	Y	Y
Boiler Unit 2 PM10	Y	N	28,701	28,701	100	N	N
Boiler Unit 2 PM2.5	Y	N	7,487	7,487	100	N	N
Boiler Unit 2 PM	Y	Y	124,786	8,348	100	Y	Y
Boiler Unit 3 PM10	Y	N	38,369	38,369	100	N	N
Boiler Unit 3 PM2.5	Y	N	10,009	10,009	100	N	N
Boiler Unit 3 PM	Y	Y	166,823	2,427	100	Y	Y
Boiler Unit 4 PM10	Y	N	38,439	38,439	100	N	N
Boiler Unit 4 PM2.5	Y	N	10,027	10,027	100	N	N
Boiler Unit 4 PM	Y	Y	167,124	2,431	100	Y	Y
Ash Silo 3 PM10/2.5	Y	Y	211	14.89	100	Y	N
Ash Silo 3 PM	Y	Y	602	24.92	100	Y	N
Rail Load BH-N PM10/2.5	Y	Y	100.21	14.89	100	Y	N
Railcar Load BH-N / PM	Y	Y	100.21	24.88	100	Y	N

CAM Analysis - SO2

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)
Boiler Unit 1	Y Scrubber	Y	116,716	57,816	100	N SO2 CEMS	N
Boiler Unit 2	Y Scrubber	Y	219,851	108,904	100	N SO2 CEMS	N
Boiler Unit 3	Y Scrubber	Y	293,912	29,118	100	N SO2 CEMS	N
Boiler Unit 4	Y Scrubber	Y	294,443	29,171	100	N SO2 CEMS	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable as follows:

(1) Emission Units PB-2, PB-3, PB-4, PB-45, PB-48, PB-51, PB-65 and PB-67 have the potential to emit before controls of PM10 of less than 100 tons per year; therefore, they are not subject to CAM for PM10/PM/PM2.5.

(2) Emission Units Boiler Unit 1 to 4 are subject to CAM for PM.

(3) Emission Units Boiler Unit 1 to 4 are not subject to an emission limiitation for PM10/PM2.5; therefore, they are not subject to CAM for PM10/PM2.5.

(3) Emission Units Boiler Unit 1 to 4 are not subject to CAM for NOx; because, a control device is not used to comply with the emission limitations and emissions from each unit are monitored by a NOx CEMS.

(4) Emission Units Boiler Unit 1 to 4 are not subject to CAM for SO2; because, an SO2 CEMS has been installed on each unit.

(5) Emission Units Boiler Unit 1 to 4 are not subject to CAM for CO; because, a control device is not used.

The source has submitted a CAM plan for PM and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

NSPS

<u>40 CFR Part 60, Subpart D [326 IAC 12]</u>

(b) Two (2) coal/No. 2 fuel oil-fired boilers, identified as Unit 3 and Unit 4, are subject to Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, which is incorporated by reference as 326 IAC 12. Unit 3 and Unit 4 are subject because each is a fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr) that commenced construction or operation after August 17, 1971. Unit 1 and Unit 2 are not subject because they were constructed prior to August 17, 1971.

The boilers identified as Unit 3 and Unit 4 are subject to the following requirements of 40 CFR 60, Subpart D:

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

(1) For particulate matter:

(A) One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]

(B) Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.

(2) For sulfur dioxide:

(A) Eight-tenths (0.80) pound SO2 per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]

(B) One and two-tenths (1.2) pound SO2 per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]

(C) When combusting different fossil fuels simultaneously, the applicable SO2 limit shall be determined using the formula in 40 CFR 60.43(b).

(3) For nitrogen oxides:

(A) Three-tenths (0.30) pound NOX per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]

(B) Seven-tenths (0.70) pound NOX per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]

(C) When combusting different fossil fuels simultaneously, the applicable NOX limit shall be determined using the formula in 40 CFR 60.44(b).

40 CFR Part 60, Subpart OOO [326 IAC 12]

(c) The limestone handling facility, identified as PB-65, is subject to the Standards of Performance for Nonmetallic Mineral Processing Plants, which is incorporated by reference as 326 IAC 12. PB-65 is subject to 40 CFR Part 60, Subpart OOO, because it contains facilities in fixed or portable nonmetallic mineral processing plants such as a crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. PB-65 shall comply with all applicable portions of 40 CFR 60, Subpart OOO.

40 CFR Part 60, Subpart Y [326 IAC 12]

(d) The coal handling facilities identified as PB-45 and PB-48 are not subject to the New Source Performance Standards for Coal Preparation and Processing Plants, 40 CFR Part 60, Subpart Y because they were construction in 1963 and 1973 which is prior to the earliest applicability date of Subpart Y, October 27, 1974.

40 CFR Part 60, Subpart HHHH [326 IAC 12]

(e) The four (4) utility boilers identified as Unit 1, Unit 2, Unit 3 and Unit 4 are not subject to the Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units, 40 CFR 60, Subpart HHHH, because each unit was constructed prior to the earliest applicability date of Subpart HHHH, November 15, 1990.

NESHAP

(f) No National Emission Standards for Hazardous Air Pollutants (NESHAP) are included in this permit.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source is subject to 326 IAC 1-6-3.

326 IAC 2-1.5-5 (Nonattainment New Source Review (Nonattainment-NSR))
This source is located in Washington Township in Pike County, Indiana. Washington Township has been designated as basic nonattainment for PM2.5 effective federally on April 5, 2005. Indianapolis Power and Light - Petersburg Generating Station has PM2.5 and SO2 emissions in excess of 100 tons per year each; therefore, it is major for Nonattainment New Source Review.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
On August 17, 1977, this source emitted in excess of 100 tons of a regulated attainment pollutant and it was a major source for PSD.

Modification in December 2008 and January 2009
On August 26, 2008, IPL-Petersburg Generating Station submitted an application for the installation and operation of a limestone wet ball mill and a limestone storage silo, along with the associated handling systems for Boiler Units 1 to 4. This modification was a minor modification for PSD.

Modification in 2011
On December 6, 2010, IPL-Petersburg Generating Station submitted an application for the replacement of the Boiler Unit 4 cooling tower. This modification was a minor modification for PSD

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is greater than 250 tons per year, and the potential to emit of CO, NOx and SO2 is greater than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by July 1, 2012, and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 3-5 (Continuous Emissions Monitoring)
This rule applies to fossil fuel-fired steam generators of greater than 100 MMBtu/hr heat input capacity. Boiler Unit 1, Unit 2, Unit 3 and Unit 4 have heat input capacities in excess of 100 MMBtu/hr; therefore, this rule applies and the source shall comply with the following:

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), continuous emission monitoring systems shall be calibrated, maintained, and operated for measuring SO2 and opacity, which meet all applicable performance specifications of 326 IAC 3-5-2.

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

(c) Pursuant to 326 IAC 3-5-4, if revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.

(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emissions monitoring system.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1).

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

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (New Source Toxics Control)

(a) On March 29, 2005, in the Federal Register notice 70 FR 15993, EPA removed coal-fired electric utility boilers from the list of source categories regulated by the MACT standards under 112(c) of the Clean Air Act (CAA). Therefore, pursuant to 326 IAC 2-4.1(b)(3), Boiler Unit 1, Unit 2, Unit 3 and Unit 4 are not subject to 326 IAC 2-4.1.

(b) The operation of the fly ash railcar loading operation, identified as BH-N, constructed in 2005 and the fly ash railcar loading operation from Ash Silo 3, constructed in 2005, each emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these facilities.

(c) The operation of the cooling tower, identified as CT-4, approved for construction in 2011 will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these facilities.

326 IAC 5-1-3 (Temporary Alternative Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-3(e).

<u>Boiler Unit 1 and Unit 2 shall comply with the following:</u>

(a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 1 and 2:

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

For Unit 1, compliance with the opacity limit is determined by adding the Unit 1 Scrubbed and Unit 1 Bypass stacks' opacity exceedances during the startup period. For Unit 2, compliance with the opacity limit is determined by adding the Unit 2 Scrubbed and Unit 2 Bypass stacks' opacity exceedances during the startup period.

(2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.

(3) Operation of the electrostatic precipitators are not required during these times.

(b) 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)]

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

Boiler Unit 3 and Unit 4 shall comply with the following:

(a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:

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

(2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.

(3) Operation of the electrostatic precipitators are not required during these times.

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

326 IAC 6-2-3 (Particulate Matter Limitations for Sources of Indirect Heating)

This rule applies to sources of indirect heating. Boiler Unit 1 and Boiler Unit 2 are subject to 326 IAC 6-2-3; because, Unit 1 and Unit 2 were constructed prior to September 21, 1983. Unit 3 and Unit 4 are not subject to this rule; because, Unit 3 and Unit 4 are subject to a particulate matter limitation in accordance with 326 IAC 12 (NSPS). Therefore, Unit 3 and Unit 4 are exempt under 326 IAC 6-2-1(f). Unit 1 and Unit 2 shall comply with the following emission limitations:

(a) Pursuant to 326 IAC 6-2-3(d), particulate emissions from Unit 1 shall not exceed 0.8 pounds per MMBtu.

(b) Pursuant to 326 IAC 6-2-3, the particulate matter emissions from Unit 2 shall not exceed 0.46 lb per MMBtu when exhausting to the main stack and 0.44 lb per MMBtu when exhausting to the bypass stack. The pounds per million Btu limits were calculated using the following equation:

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

where C = 50 u/m3
Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)
Q = total source maximum operating capacity rating (Q = 6344 MMBtu/hr)
N = number of stacks (N = 1)
a = plume rise factor (a = 0.8)
h = stack height (h = 621 ft; h of bypass stack = 604.5 ft)

Particulate Emission Limitations for Manufacturing Processes [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 and limestone handling facilities (PB-45 and PB-48) (excluding ash ponds, vehicular traffic on paved and unpaved roads, (including truck hauling), conveyance systems open to the atmosphere, storage piles, free fall to storage piles, tanker and truck loading/unloading, bulk material movement, and general construction activities) shall not exceed an amount determined by the following:

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

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

(b) 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This rule applies to any source of fugitive particulate matter emissions located in a nonattainment area for particulate matter as designated by the board, except for sources located in Lake County, which has potential fugitive particulate matter emissions of twenty-five (25) tons per year or more. This source is located in a nonattainment area, Washington Township, Pike County and has a potential to emit of fugitive particulate matter in excess of twenty-five (25) tons per year. Therefore, this rule applies. A fugitive dust control plan is attached to the permit.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
This rule applies to all emission units with a potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Boiler Unit 1, Unit 2, Unit 3 and Unit 4 have the potential to emit of greater than 25 tons per year of sulfur dioxide, therefore, this rule applies. Boiler Unit 1, Unit 2, Unit 3 and Unit 4 shall not exceed 6.0 lb SO2/MMBtu, when burning coal or coal in combination with any other fuel and 0.5 lb SO2/MMBtu when combusting fuel oil.

326 IAC 8-1-6 (New facilities; general reduction requirements)
This rule applies to new facilities, as of January 1, 1980, that have a potential to emit VOC of twenty-five (25) tons per year or more and are not regulated by another Article 8 rule or by 326 IAC 20-48 or 326 IAC 20-56. All emission uints with VOC emissions were constructed prior to the applicability date of this rule; therefore, the rule does not apply.

326 IAC 24 (Clean Air Interstate Rule)
This rule applies to any source that includes a stationary fossil-fuel-fired boiler or fossil fuel-fired combustion turbine that began operation after November 15, 1990 and serves a generator with a nameplate capacity of more than 25 megawatt (MW) producing electricity for sale. Boiler Unit 1, Unit 2, Unit 3 and Unit 4 are fossil-fuel fired boilers that have served a generator with a nameplate capacity of more than 25 MW since November 15, 1990. Therefore, the requirements of 326 IAC 24 apply to Boiler Units 1, 2, 3 and 4.

326 IAC 21 (Acid Deposition Control)
326 IAC 21 incorporates by reference the provisions of 40 CFR 72 through 40 CFR 78 for the purposes of implementing an acid rain program that meets the requirements of Title IV of the Clean Air Act and to incorporate monitoring, record keeping, and reporting requirements for nitrogen oxide and sulfur dioxide emissions to demonstrate compliance with nitrogen oxides and sulfur dioxide emission reduction requirements. This source is subject to the requirements of 326 IAC 21.

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:

Emission Unit	Parameter	Frequency
Boiler Unit 1 and Unit 2	Use of ESP [40 CFR 64]	At all times the process is in operation [40 CFR 64]
Boiler Unit 1 and Unit 2	Use of FGD Scrubbers	As required to meet SO_2 Limit as determined by SO_2 CEMS.
Boiler Unit 3 and Unit 4	Use of ESP [40 CFR 64]	At all times the process is in operation [40 CFR 64]
Boiler Unit 3 and Unit 4	Use of FGD Scrubbers	As required to meet SO_2 Limit as determined by SO_2 CEMS.
Coal / Limestone Handling Operations (PB-45 and PB-48)	Use Enclosures	At all times units are in operation.
Fly Ash Railcar Loading (BH-N)	Operate Baghouse [40 CFR 64]	At all times units are in operation.
Rail Loading at Fly Ash Silo	Operate Baghouse [40 CFR 64]	At all times units are in operation.

Summary of Testing Requirements				
Emission Unit	**Control Device**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
Boiler Unit 1 and Unit 2	ESP	PM	Every Two Years	326 IAC 6-2-3
Boiler Unit 4	ESP	PM	Every Two Years	40 CFR 60, Subpart D

The Compliance Monitoring Requirements applicable to this modification are as follows:

Emission Unit	Parameter	Frequency	Response
Boiler Unit 1and Unit 2	Primary Voltage Secondary Voltage Sets in Service Current [40 CFR 64]	Once per Day	Reasonable Response Steps [40 CFR 64]
Boiler Unit 3 and Unit 4	Primary Voltage Secondary Voltage Sets in Service Current [40 CFR 64]	Once per Day	Reasonable Response Steps [40 CFR 64]
Coal / Limestone Handling Operations (PB-45 and PB-48)	VE Notations	Once per Week	Reasonable Response Steps
Limestone Handling Facility PB-65, FGD Gypsum Handling PB-67 and Ash and Filter Cake Handling PB-51	VE Notations	Once per Week	Reasonable Response Steps
Limestone and Fly Ash Silo Baghouses in PB-65, PB-67 and PB-51	Pressure Drop	Once per Week	Reasonable Response Steps
Fly Ash Railcar Loading (BH-N)	VE Notations [40 CFR 64]	Once per Week	Reasonable Response Steps

Emission Unit	Parameter	Frequency	Response
Rail Loading at Fly Ash Silo	VE Notations [40 CFR 64]	Once per Week	Reasonable Response Steps
Fly Ash Railcar Loading (BH-N)	Pressure Drop	Once per Week	Reasonable Response Steps
Rail Loading at Fly Ash Silo	Pressure Drop	Once per Week	Reasonable Response Steps

These requirements are necessary to ensure compliance with 40 CFR 60, Subpart D, 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 40 CFR 64 (CAM) and 326 IAC 6-2-3.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 22, 2010. Additional information was received on June 6, 2011.

Conclusion

The operation of this stationary electric utility generating station shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T 125-30045-00002.

IDEM Contact

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

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Technical Support Document - Appendix A - Emission Summary Sheet

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Potential to Emit (ton/yr)										
Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NOx**	**VOC**	**CO**	**CO_2e**	**Total HAP**	**Single HAP**
Boiler / Unit 1	66,248	15,237	3,975	116,716	9,034	36.14	344.14	2,912,207	**Emission factors are after control**	
Boiler / Unit 2	124,786	28,701	7,487	219,851	17,016	68.07	648.24	5,485,715		
Boiler / Unit 3	166,823	38,369	10,009	293,912	22,749	90.99	866.61	7,333,517		
Boiler / Unit 4	167,124	38,439	10,027	294,443	22,790	91.16	868.18	7,346,994		
Emergency Generator / PB-2	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Emergency Generator / PB-3	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Emergency Generator / PB-4	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159	0.011	0.006
Limestone, Gypsum and Coal Handling	117.33	55.52	8.60	0.00	0.00	0.00	0.00	0.00	0.000	0.000
Fly Ash Handling	701.91	311.00	311.00	0.00	0.00	0.00	0.00	0.00	0.154	0.041
Coal Storage	13.94	6.97	1.05	0.00	0.00	0.00	0.00	0.00	0.000	0.000
Cooling Tower	9.86	8.38	8.38	0.00	0.00	0.00	0.00	0.00	0.000	0.000
Paved Roads	528.23	106.43	25.62	0.00	0.00	0.00	0.00	0.00	0.000	0.000
Total PTE - Entire Source	526,354	121,236	31,854	924,928	71,657	288.07	2,745	> 100,000	> 25	> 10

Worst Case HAP is Hydrogen Chloride

Potential to Emit (ton/yr) after Issuance										
Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NOx**	**VOC**	**CO**	**CO_2e**	**Total HAP**	**Single HAP**
Boiler / Unit 1	7,709	15,237	3,975	57,816	9,034	36.14	344.14	2,912,207	820.39	722.70
Boiler / Unit 2	8,348	28,701	7,487	108,904	17,016	68.07	648.24	5,485,715	1,545	1,361
Boiler / Unit 3	2,427	38,369	10,009	29,118	16,986	90.99	866.61	7,333,517	2,066	1,820
Boiler / Unit 4	2,431	38,439	10,027	29,171	17,016	91.16	868.18	7,346,994	2,070	1,823
Emergency Generator / PB-2	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159.00	0.011	0.006
Emergency Generator / PB-3	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159.00	0.011	0.006
Emergency Generator / PB-4	0.50	0.40	0.40	2.15	22.72	0.57	6.04	1,159.00	0.011	0.006
Limestone, Gypsum and Coal Handling	117.33	55.52	8.60	0.00	0.00	0.0	0.00	0.00	0.00	0.00
Fly Ash Handling	49.80	29.78	29.78	0.00	0.00	0.0	0.00	0.00	0.011	0.003
Coal Storage	13.94	6.97	1.05	0.00	0.00	0.0	0.00	0.00	0.00	0.00
Cooling Tower	9.86	8.38	8.38	0.00	0.00	0.0	0.00	0.00	0.00	0.00
Paved Roads	264.12	53.22	12.81	0.00	0.00	0.0	0.00	0.00	0.00	0.00
Total PTE - Entire Source	21,372	120,901	31,560	225,015	60,120	288.10	2,745	> 100,000	> 25	> 10
Title V Major Source Threshold	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100,000	25.00	10.00
PSD Major Source Threshold	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100,000	---	---

Worst Case HAP is Hydrogen Chloride

Technical Support Document - Appendix A - Emission Calculations

Boiler - Unit #1

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Coal Combustion					
Heat Input Capacity	2,200	MMBtu/hr	**Permit Limits**		
Coal Heat Content	8,000	Btu/lb Coal	SO2 (Coal)	6.00	lb/MMBtu
Coal Throughput	1,204,500	tons/yr	SO2 (Fuel Oil)	0.50	lb/MMBtu
Sulfur Wt%	5.10%		PM	0.80	lb/MMBtu
% Ash	11.00%				

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/ton)	PTE (ton/yr)	Emission Factor Source
PM	110.00	66,248	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM10 (Fil+Cond)	25.30	15,237	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM2.5	6.60	3,975	AP-42, 9/98, Table 1.1-6
SO2	193.80	116,716	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16
NOx	15.00	9,034	AP-42, 9/98, Table 1.1-3, SCC 1-02-002-12
VOC	0.06	36.14	AP-42, 9/98, Table 1.1-19, SCC 1-01-002-12
CO	0.50	301.13	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM10 (Fil+Cond)	15,237
PM2.5	3,975
NOx	9,034
VOC	36.14
CO	301.13

Pollutant	Emission Limit (lb/MMBtu)	Limited PTE (lb/hr)	Limited PTE (ton/yr)
SO2	6.00	13,200	57,816
PM	0.80	1,760	7,709

Methodology:

PTE (ton/yr) = throughput (TPY) * E.F. (lb/ton) / 2,000 lb/ton

PTE (lb/hr) = PTE (TPY) * 2,000 lb/ton / 8,760 hr/yr

Limited PTE (TPY) = [Heat input (MMBtu/hr) * Limit (lb/MMBtu) * 8,760 hr/yr] / 2,000 lb/ton

NOTES:
AP-42, Table 1.1-5 lists Filterable PM as 0.02 lb PM/MMBtu or 0.00016 lb PM per ton coal.

Boiler - Unit #1 - Continued

Fuel Oil Combustion	
Heat Input Capacity	2,200.00 MMBtu/hr
Fuel Oil Throughput	137,657 Kgal/yr
Wt% Sulfur	0.30%

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/Kgal)	PTE (ton/yr)	Emission Factor Source
PM	2.00	137.66	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
PM10 (Fil+Cond)	1.00	68.83	AP-42, Table 1.3-6, 5/10
PM2.5	0.25	17.21	AP-42, Table 1.3-6, 5/10
SO2	42.60	2,932	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
NOx	24.00	1,652	AP-42, Table 1.3-1, 5/10, SCC 1-02-005-01
VOC	0.20	13.77	AP-42,Table 1.3-3,5/10,SCC1-02-005-01/02/03
CO	5.00	344.14	AP-42, Table 1.3-1, 5/10, SCC 1-03-005-01

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM	137.66
PM10 (Fil+Cond)	68.83
PM2.5	17.21
NOx	1,652
VOC	13.77
CO	344.14
SO2	2,932

326 IAC 7-1.1 Limitation

Pollutant	Emission Limitation	Limited PTE (ton/yr)
SO2	0.50	4,818

Note:
The potential to emit using fuel oil is less than the allowable emissions under 326 IAC 7-1.1 for SO2. The potential to emit after issuance will be shown as the PTE of the emission unit of 2,932 TPY.

Notes:

1) Coal combustion produces the worst case emissions for all pollutants except CO.
2) PTE and Limited PTE will be controlled by coal combustion for all pollutants except CO.

Boiler - Unit #1 - Continued

Coal Combustion - HAP Emissions

Coal Throughput 1,204,500.00 tons/yr

Controlled Potential to Emit

Pollutant	Emission Factor (lb/ton coal)	PTE (lb/hr)	PTE (ton/yr)	Emission Factor Source
Total Dioxins-Furans	1.79E-09	2.46E-07	1.08E-06	Controlled, AP-42, 9/98, Table 1.1-12
Biphenyl	1.70E-06	2.34E-04	1.02E-03	Controlled, AP-42, 9/98, Table 1.1-13
Naphthalene	1.30E-05	0.0018	0.0078	Controlled, AP-42, 9/98, Table 1.1-13
Acetaldehyde	5.70E-04	0.0784	0.3433	Controlled, AP-42, 9/98, Table 1.1-14
Acetophenone	1.50E-05	0.0021	0.0090	Controlled, AP-42, 9/98, Table 1.1-14
Acrolein	2.90E-04	0.0399	0.1747	Controlled, AP-42, 9/98, Table 1.1-14
Benzene	1.30E-03	0.1788	0.7829	Controlled, AP-42, 9/98, Table 1.1-14
Benzyl Chloride	7.00E-04	0.0963	0.4216	Controlled, AP-42, 9/98, Table 1.1-14
Bis (2-ethylhexyl) phthalate	7.30E-05	0.0100	0.0440	Controlled, AP-42, 9/98, Table 1.1-14
Bromoform	3.90E-05	0.0054	0.0235	Controlled, AP-42, 9/98, Table 1.1-14
Carbon disulfide	1.30E-04	0.0179	0.0783	Controlled, AP-42, 9/98, Table 1.1-14
2-Chloroacetophenone	7.00E-06	0.0010	0.0042	Controlled, AP-42, 9/98, Table 1.1-14
Chlorobenzene	2.20E-05	0.0030	0.0132	Controlled, AP-42, 9/98, Table 1.1-14
Chloroform	5.90E-05	0.0081	0.0355	Controlled, AP-42, 9/98, Table 1.1-14
Cumene	5.30E-06	0.0007	0.0032	Controlled, AP-42, 9/98, Table 1.1-14
Cyanide	2.50E-03	0.3438	1.5056	Controlled, AP-42, 9/98, Table 1.1-14
2,4-Dinitrotoluene	2.80E-07	3.85E-05	1.69E-04	Controlled, AP-42, 9/98, Table 1.1-14
Dimethyl sulfate	4.80E-05	0.0066	0.0289	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl benzene	9.40E-05	0.0129	0.0566	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl chloride	4.20E-05	0.0058	0.0253	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dichloride	4.00E-05	0.0055	0.0241	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dibromide	1.20E-06	1.65E-04	7.23E-04	Controlled, AP-42, 9/98, Table 1.1-14
Formaldehyde	2.40E-04	0.0330	0.1445	Controlled, AP-42, 9/98, Table 1.1-14
Hexane	6.70E-05	0.0092	0.0404	Controlled, AP-42, 9/98, Table 1.1-14
Isophorone	5.80E-04	0.0798	0.3493	Controlled, AP-42, 9/98, Table 1.1-14
Methyl bromide	1.60E-04	0.0220	0.0964	Controlled, AP-42, 9/98, Table 1.1-14
Methyl chloride	5.30E-04	0.0729	0.3192	Controlled, AP-42, 9/98, Table 1.1-14
Methyl hydrazine	1.70E-04	0.0234	0.1024	Controlled, AP-42, 9/98, Table 1.1-14
Methyl methacrylate	2.00E-05	0.0028	0.0120	Controlled, AP-42, 9/98, Table 1.1-14
Methylene chloride	2.90E-04	0.0399	0.1747	Controlled, AP-42, 9/98, Table 1.1-14
Phenol	1.60E-05	0.0022	0.0096	Controlled, AP-42, 9/98, Table 1.1-14
Propionaldehyde	3.80E-04	0.0523	0.2289	Controlled, AP-42, 9/98, Table 1.1-14
Tetrachloroethylene	4.30E-05	0.0059	0.0259	Controlled, AP-42, 9/98, Table 1.1-14
Toluene	2.40E-04	0.0330	0.1445	Controlled, AP-42, 9/98, Table 1.1-14
1,1,1-Trichloroethane	2.00E-05	0.0028	0.0120	Controlled, AP-42, 9/98, Table 1.1-14
Styrene	2.50E-05	0.0034	0.0151	Controlled, AP-42, 9/98, Table 1.1-14
Xylenes	3.70E-05	0.0051	0.0223	Controlled, AP-42, 9/98, Table 1.1-14
Vinyl acetate	7.60E-06	1.05E-03	4.58E-03	Controlled, AP-42, 9/98, Table 1.1-14
Hydrogen Chloride	1.20E+00	165.0000	722.7000	Controlled, AP-42, 9/98, Table 1.1-15
Hydrogen Fluoride	1.50E-01	20.6250	90.3375	Controlled, AP-42, 9/98, Table 1.1-15
Antimony	1.85E-05	0.0025	0.0111	Controlled, AP-42, 9/98, Table 1.1-18
Arsenic	4.10E-04	0.0564	0.2469	Controlled, AP-42, 9/98, Table 1.1-18
Beryllium	2.10E-05	0.0029	0.0126	Controlled, AP-42, 9/98, Table 1.1-18
Cadmium	5.10E-05	0.0070	0.0307	Controlled, AP-42, 9/98, Table 1.1-18
Chromium	2.60E-04	0.0358	0.1566	Controlled, AP-42, 9/98, Table 1.1-18
Chromium (VI)	7.90E-05	0.0109	0.0476	Controlled, AP-42, 9/98, Table 1.1-18
Cobalt	1.00E-04	0.0138	0.0602	Controlled, AP-42, 9/98, Table 1.1-18
Lead	4.20E-04	0.0578	0.2529	Controlled, AP-42, 9/98, Table 1.1-18
Manganese	4.90E-04	0.0674	0.2951	Controlled, AP-42, 9/98, Table 1.1-18
Nickel	2.80E-04	0.0385	0.1686	Controlled, AP-42, 9/98, Table 1.1-18
Selenium	1.30E-03	0.1788	0.7829	Controlled, AP-42, 9/98, Table 1.1-18
Total HAPs		187.30	820.39	lb/hr & TPY
Single HAP		165.00	722.70	lb/hr & TPY

Uncontrolled PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	66,248	15,237	3,975	116,716	9,034	36.14	301.13
Fuel Oil Combustion	137.66	68.83	17.21	2,932	1,652	13.77	344.14
Worst Case	66,248	15,237	3,975	116,716	9,034	36.14	344.14

Limited PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	7,709	15,237	3,975	57,816	9,034	36.14	301.13
Fuel Oil Combustion	137.66	68.83	17.21	2,932	1,652	13.77	344.14
Worst Case	7,709	15,237	3,975	57,816	9,034	36.14	344.14

Technical Support Document - Appendix A - Emission Calculations

Boiler - Unit #2

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Coal Combustion			Permit Limits		
Heat Input Capacity	4,144	MMBtu/hr			
Coal Heat Content	8,000	Btu/lb Coal	SO2 (Coal)	6.00	lb/MMBtu
Coal Throughput	2,268,840	tons/yr	SO2 (Fuel Oil)	0.50	lb/MMBtu
Sulfur Wt%	5.10%		PM	0.46	lb/MMBtu
% Ash	11.00%				

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/ton)	PTE (ton/yr)	Emission Factor Source
PM	110.00	124,786	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM10 (Fil+Cond)	25.30	28,701	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM2.5	6.60	7,487	AP-42, 9/98, Table 1.1-6
SO2	193.80	219,851	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16
NOx	15.00	17,016	AP-42, 9/98, Table 1.1-3, SCC 1-02-002-12
VOC	0.06	68.07	AP-42, 9/98, Table 1.1-19, SCC 1-01-002-12
CO	0.50	567.21	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM10 (Fil+Cond)	28,701
PM2.5	7,487
NOx	17,016
VOC	68.07
CO	567.21

Pollutant	Emission Limit (lb/MMBtu)	Limited PTE (lb/hr)	Limited PTE (ton/yr)
SO2	6.00	24,864	108,904
PM	0.46	1,906	8,348

Methodology:

PTE (ton/yr) = throughput (TPY) * E.F. (lb/ton) / 2,000 lb/ton
PTE (lb/hr) = PTE (TPY) * 2,000 lb/ton / 8,760 hr/yr
Limited PTE (TPY) = [Heat input (MMBtu/hr) * Limit (lb/MMBtu) * 8,760 hr/yr] / 2,000 lb/ton

Boiler - Unit #2 - Continued

Fuel Oil Combustion	
Heat Input Capacity	4,144.00 MMBtu/hr
Fuel Oil Throughput	259,296 Kgal/yr
Wt% Sulfur	0.30%

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/Kgal)	PTE (ton/yr)	Emission Factor Source
PM	2.00	259.30	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
PM10 (Fil+Cond)	1.00	129.65	AP-42, Table 1.3-6, 5/10
PM2.5	0.25	32.41	AP-42, Table 1.3-6, 5/10
SO2	42.60	5,523	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
NOx	24.00	3,112	AP-42, Table 1.3-1, 5/10, SCC 1-02-005-01
VOC	0.20	25.93	AP-42,Table 1.3-3,5/10,SCC1-02-005-01/02/03
CO	5.00	648.24	AP-42, Table 1.3-1, 5/10, SCC 1-03-005-01

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM	259.30
PM10 (Fil+Cond)	129.65
PM2.5	32.41
NOx	3,112
VOC	25.93
CO	648.24
SO2	5,523

326 IAC 7-1.1 Limitation

Pollutant	Emission Limitation (lb/MMBtu)	Limited PTE (TPY)
SO2	0.50	9,075

Note:
The potential to emit using fuel oil is less than the allowable emissions under 326 IAC 7-1.1 for SO2. The potential to emit after issuance will be shown as the PTE of the emission unit of 5,523 TPY.

Notes:

1) Coal combustion produces the worst case emissions for all pollutants except CO.
2) PTE and Limited PTE will be controlled by coal combustion for all pollutants except CO.

Boiler - Unit #2 - Continued

Coal Combustion - HAP Emissions

Coal Throughput 2,268,840.00 tons/yr

Controlled Potential to Emit

Pollutant	Emission Factor (lb/ton coal)	PTE (lb/hr)	PTE (ton/yr)	Emission Factor Source
Total Dioxins-Furans	1.79E-09	4.64E-07	2.03E-06	Controlled, AP-42, 9/98, Table 1.1-12
Biphenyl	1.70E-06	4.40E-04	1.93E-03	Controlled, AP-42, 9/98, Table 1.1-13
Naphthalene	1.30E-05	0.0034	0.0147	Controlled, AP-42, 9/98, Table 1.1-13
Acetaldehyde	5.70E-04	0.1476	0.6466	Controlled, AP-42, 9/98, Table 1.1-14
Acetophenone	1.50E-05	0.0039	0.0170	Controlled, AP-42, 9/98, Table 1.1-14
Acrolein	2.90E-04	0.0751	0.3290	Controlled, AP-42, 9/98, Table 1.1-14
Benzene	1.30E-03	0.3367	1.4747	Controlled, AP-42, 9/98, Table 1.1-14
Benzyl Chloride	7.00E-04	0.1813	0.7941	Controlled, AP-42, 9/98, Table 1.1-14
Bis (2-ethylhexyl) phthalate	7.30E-05	0.0189	0.0828	Controlled, AP-42, 9/98, Table 1.1-14
Bromoform	3.90E-05	0.0101	0.0442	Controlled, AP-42, 9/98, Table 1.1-14
Carbon disulfide	1.30E-04	0.0337	0.1475	Controlled, AP-42, 9/98, Table 1.1-14
2-Chloroacetophenone	7.00E-06	0.0018	0.0079	Controlled, AP-42, 9/98, Table 1.1-14
Chlorobenzene	2.20E-05	0.0057	0.0250	Controlled, AP-42, 9/98, Table 1.1-14
Chloroform	5.90E-05	0.0153	0.0669	Controlled, AP-42, 9/98, Table 1.1-14
Cumene	5.30E-06	0.0014	0.0060	Controlled, AP-42, 9/98, Table 1.1-14
Cyanide	2.50E-03	0.6475	2.8361	Controlled, AP-42, 9/98, Table 1.1-14
2,4-Dinitrotoluene	2.80E-07	7.25E-05	3.18E-04	Controlled, AP-42, 9/98, Table 1.1-14
Dimethyl sulfate	4.80E-05	0.0124	0.0545	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl benzene	9.40E-05	0.0243	0.1066	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl chloride	4.20E-05	0.0109	0.0476	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dichloride	4.00E-05	0.0104	0.0454	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dibromide	1.20E-06	3.11E-04	1.36E-03	Controlled, AP-42, 9/98, Table 1.1-14
Formaldehyde	2.40E-04	0.0622	0.2723	Controlled, AP-42, 9/98, Table 1.1-14
Hexane	6.70E-05	0.0174	0.0760	Controlled, AP-42, 9/98, Table 1.1-14
Isophorone	5.80E-04	0.1502	0.6580	Controlled, AP-42, 9/98, Table 1.1-14
Methyl bromide	1.60E-04	0.0414	0.1815	Controlled, AP-42, 9/98, Table 1.1-14
Methyl chloride	5.30E-04	0.1373	0.6012	Controlled, AP-42, 9/98, Table 1.1-14
Methyl hydrazine	1.70E-04	0.0440	0.1929	Controlled, AP-42, 9/98, Table 1.1-14
Methyl methacrylate	2.00E-05	0.0052	0.0227	Controlled, AP-42, 9/98, Table 1.1-14
Methylene chloride	2.90E-04	0.0751	0.3290	Controlled, AP-42, 9/98, Table 1.1-14
Phenol	1.60E-05	0.0041	0.0182	Controlled, AP-42, 9/98, Table 1.1-14
Propionaldehyde	3.80E-04	0.0984	0.4311	Controlled, AP-42, 9/98, Table 1.1-14
Tetrachloroethylene	4.30E-05	0.0111	0.0488	Controlled, AP-42, 9/98, Table 1.1-14
Toluene	2.40E-04	0.0622	0.2723	Controlled, AP-42, 9/98, Table 1.1-14
1,1,1-Trichloroethane	2.00E-05	0.0052	0.0227	Controlled, AP-42, 9/98, Table 1.1-14
Styrene	2.50E-05	0.0065	0.0284	Controlled, AP-42, 9/98, Table 1.1-14
Xylenes	3.70E-05	0.0096	0.0420	Controlled, AP-42, 9/98, Table 1.1-14
Vinyl acetate	7.60E-06	1.97E-03	8.62E-03	Controlled, AP-42, 9/98, Table 1.1-14
Hydrogen Chloride	1.20E+00	310.8000	1,361.3040	Controlled, AP-42, 9/98, Table 1.1-15
Hydrogen Fluoride	1.50E-01	38.8500	170.1630	Controlled, AP-42, 9/98, Table 1.1-15
Antimony	1.85E-05	0.0048	0.0210	Controlled, AP-42, 9/98, Table 1.1-18
Arsenic	4.10E-04	0.1062	0.4651	Controlled, AP-42, 9/98, Table 1.1-18
Beryllium	2.10E-05	0.0054	0.0238	Controlled, AP-42, 9/98, Table 1.1-18
Cadmium	5.10E-05	0.0132	0.0579	Controlled, AP-42, 9/98, Table 1.1-18
Chromium	2.60E-04	0.0673	0.2949	Controlled, AP-42, 9/98, Table 1.1-18
Chromium (VI)	7.90E-05	0.0205	0.0896	Controlled, AP-42, 9/98, Table 1.1-18
Cobalt	1.00E-04	0.0259	0.1134	Controlled, AP-42, 9/98, Table 1.1-18
Lead	4.20E-04	0.1088	0.4765	Controlled, AP-42, 9/98, Table 1.1-18
Manganese	4.90E-04	0.1269	0.5559	Controlled, AP-42, 9/98, Table 1.1-18
Nickel	2.80E-04	0.0725	0.3176	Controlled, AP-42, 9/98, Table 1.1-18
Selenium	1.30E-03	0.3367	1.4747	Controlled, AP-42, 9/98, Table 1.1-18
Total HAPs		352.81	1,545	lb/hr & TPY
Single HAP		310.80	1,361	lb/hr & TPY

Uncontrolled PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	124,786	28,701	7,487	219,851	17,016	68.07	567.21
Fuel Oil Combustion	259.30	129.65	32.41	5,523	3,112	25.93	648.24
Worst Case	124,786	28,701	7,487	219,851	17,016	68.07	648.24

Limited PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	8,348	28,701	7,487	108,904	17,016	68.07	567.21
Fuel Oil Combustion	259.30	129.65	32.41	5,523	3,112	25.93	648.24
Worst Case	8,348	28,701	7,487	108,904	17,016	68.07	648.24

Technical Support Document - Appendix A - Emission Calculations

Boiler - Unit #3

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Coal Combustion			
Heat Input Capacity	5,540 MMBtu/hr	Permit Limits	
Coal Heat Content	8,000 Btu/lb Coal	SO2 (Coal)	1.20 lb/MMBtu
Coal Throughput	3,033,150 tons/yr	SO2 (Fuel Oil)	0.50 lb/MMBtu
Sulfur Wt%	5.10%	PM	0.10 lb/MMBtu
% Ash	11.00%	NOx (Coal)	0.70 lb/MMBtu
		NOx (Fuel Oil)	0.30 lb/MMBtu

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/ton)	PTE (ton/yr)	Emission Factor Source
PM	110.00	166,823	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM10 (Fil+Cond)	25.30	38,369	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM2.5	6.60	10,009	AP-42, 9/98, Table 1.1-6
SO2	193.80	293,912	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16
NOx	15.00	22,749	AP-42, 9/98, Table 1.1-3, SCC 1-02-002-12
VOC	0.06	90.99	AP-42, 9/98, Table 1.1-19, SCC 1-01-002-12
CO	0.50	758.29	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM10 (Fil+Cond)	38,369
PM2.5	10,009
VOC	90.99
CO	758.29

Pollutant	Emission Limit (lb/MMBtu)	Limited PTE (lb/hr)	Limited PTE (ton/yr)
NOx	0.70	3,878	16,986
PM	0.10	554.00	2,427
SO2	1.20	6,648	29,118

Methodology:

PTE (ton/yr) = throughput (TPY) * E.F. (lb/ton) / 2,000 lb/ton
PTE (lb/hr) = PTE (TPY) * 2,000 lb/ton / 8,760 hr/yr
Limited PTE (TPY) = [Heat input (MMBtu/hr) * Limit (lb/MMBtu) * 8,760 hr/yr] / 2,000 lb/ton

Boiler - Unit #3 - Continued

Fuel Oil Combustion

Heat Input Capacity	5,540.00	MMBtu/hr
Fuel Oil Throughput	346,645.72	Kgal/yr
Wt% Sulfur	0.30%	

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/Kgal)	PTE (ton/yr)	Emission Factor Source
PM	2.00	346.65	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
PM10 (Fil+Cond)	1.00	173.32	AP-42, Table 1.3-6, 5/10
PM2.5	0.25	43.33	AP-42, Table 1.3-6, 5/10
SO2	42.60	7,384	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
NOx	24.00	4,160	AP-42, Table 1.3-1, 5/10, SCC 1-02-005-01
VOC	0.20	34.66	AP-42,Table 1.3-3,5/10,SCC1-02-005-01/02/03
CO	5.00	866.61	AP-42, Table 1.3-1, 5/10, SCC 1-03-005-01

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM	346.65
PM10	173.32
PM2.5	43.33
SO2	7,384
NOx	4,160
VOC	34.66
CO	866.61

326 IAC 7-1.1 Limitation

Pollutant	Emission Limitation (lb/MMBtu)	Limited PTE (TPY)
SO2	0.50	12,133

40 CFR 60, Subpart D Limits

Pollutant	Limit lb/MMBtu	Limited PTE TPY
NOx	0.30	7,279.56
PM	0.10	2,426.52

Notes:

1) Coal combustion produces the worst case emissions for all pollutants except CO.
2) PTE and Limited PTE will be controlled by coal combustion for all pollutants except CO.
3) The potential to emit using fuel oil is less than the allowable emissions under 326 IAC 7-1.1 for SO2. The potential to emit after issuance will be shown as the PTE of the emission unit of 7,384 TPY. The NSPS limit for SO2 is higher than the 326 IAC 7-1.1 limit and is not shown.
4) The PTE of NOx and PM are lower than the 40 CFR 60, Subpart D Limits. Therefore, the PTE after issuance is shown as the PTE.

Boiler - Unit #3 - Continued

Coal Combustion - HAP Emissions

Coal Throughput 3,033,150.00 tons/yr

Controlled Potential to Emit

Pollutant	Emission Factor (lb/ton coal)	PTE (lb/hr)	PTE (ton/yr)	Emission Factor Source
Total Dioxins-Furans	1.79E-09	6.20E-07	2.71E-06	Controlled, AP-42, 9/98, Table 1.1-12
Biphenyl	1.70E-06	5.89E-04	2.58E-03	Controlled, AP-42, 9/98, Table 1.1-13
Naphthalene	1.30E-05	0.0045	0.0197	Controlled, AP-42, 9/98, Table 1.1-13
Acetaldehyde	5.70E-04	0.1974	0.8644	Controlled, AP-42, 9/98, Table 1.1-14
Acetophenone	1.50E-05	0.0052	0.0227	Controlled, AP-42, 9/98, Table 1.1-14
Acrolein	2.90E-04	0.1004	0.4398	Controlled, AP-42, 9/98, Table 1.1-14
Benzene	1.30E-03	0.4501	1.9715	Controlled, AP-42, 9/98, Table 1.1-14
Benzyl Chloride	7.00E-04	0.2424	1.0616	Controlled, AP-42, 9/98, Table 1.1-14
Bis (2-ethylhexyl) phthalate	7.30E-05	0.0253	0.1107	Controlled, AP-42, 9/98, Table 1.1-14
Bromoform	3.90E-05	0.0135	0.0591	Controlled, AP-42, 9/98, Table 1.1-14
Carbon disulfide	1.30E-04	0.0450	0.1972	Controlled, AP-42, 9/98, Table 1.1-14
2-Chloroacetophenone	7.00E-06	0.0024	0.0106	Controlled, AP-42, 9/98, Table 1.1-14
Chlorobenzene	2.20E-05	0.0076	0.0334	Controlled, AP-42, 9/98, Table 1.1-14
Chloroform	5.90E-05	0.0204	0.0895	Controlled, AP-42, 9/98, Table 1.1-14
Cumene	5.30E-06	0.0018	0.0080	Controlled, AP-42, 9/98, Table 1.1-14
Cyanide	2.50E-03	0.8656	3.7914	Controlled, AP-42, 9/98, Table 1.1-14
2,4-Dinitrotoluene	2.80E-07	9.70E-05	4.25E-04	Controlled, AP-42, 9/98, Table 1.1-14
Dimethyl sulfate	4.80E-05	0.0166	0.0728	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl benzene	9.40E-05	0.0325	0.1426	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl chloride	4.20E-05	0.0145	0.0637	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dichloride	4.00E-05	0.0139	0.0607	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dibromide	1.20E-06	4.16E-04	1.82E-03	Controlled, AP-42, 9/98, Table 1.1-14
Formaldehyde	2.40E-04	0.0831	0.3640	Controlled, AP-42, 9/98, Table 1.1-14
Hexane	6.70E-05	0.0232	0.1016	Controlled, AP-42, 9/98, Table 1.1-14
Isophorone	5.80E-04	0.2008	0.8796	Controlled, AP-42, 9/98, Table 1.1-14
Methyl bromide	1.60E-04	0.0554	0.2427	Controlled, AP-42, 9/98, Table 1.1-14
Methyl chloride	5.30E-04	0.1835	0.8038	Controlled, AP-42, 9/98, Table 1.1-14
Methyl hydrazine	1.70E-04	0.0589	0.2578	Controlled, AP-42, 9/98, Table 1.1-14
Methyl methacrylate	2.00E-05	0.0069	0.0303	Controlled, AP-42, 9/98, Table 1.1-14
Methylene chloride	2.90E-04	0.1004	0.4398	Controlled, AP-42, 9/98, Table 1.1-14
Phenol	1.60E-05	0.0055	0.0243	Controlled, AP-42, 9/98, Table 1.1-14
Propionaldehyde	3.80E-04	0.1316	0.5763	Controlled, AP-42, 9/98, Table 1.1-14
Tetrachloroethylene	4.30E-05	0.0149	0.0652	Controlled, AP-42, 9/98, Table 1.1-14
Toluene	2.40E-04	0.0831	0.3640	Controlled, AP-42, 9/98, Table 1.1-14
1,1,1-Trichloroethane	2.00E-05	0.0069	0.0303	Controlled, AP-42, 9/98, Table 1.1-14
Styrene	2.50E-05	0.0087	0.0379	Controlled, AP-42, 9/98, Table 1.1-14
Xylenes	3.70E-05	0.0128	0.0561	Controlled, AP-42, 9/98, Table 1.1-14
Vinyl acetate	7.60E-06	2.63E-03	1.15E-02	Controlled, AP-42, 9/98, Table 1.1-14
Hydrogen Chloride	1.20E+00	415.5000	1,819.8900	Controlled, AP-42, 9/98, Table 1.1-15
Hydrogen Fluoride	1.50E-01	51.9375	227.4863	Controlled, AP-42, 9/98, Table 1.1-15
Antimony	1.85E-05	0.0064	0.0281	Controlled, AP-42, 9/98, Table 1.1-18
Arsenic	4.10E-04	0.1420	0.6218	Controlled, AP-42, 9/98, Table 1.1-18
Beryllium	2.10E-05	0.0073	0.0318	Controlled, AP-42, 9/98, Table 1.1-18
Cadmium	5.10E-05	0.0177	0.0773	Controlled, AP-42, 9/98, Table 1.1-18
Chromium	2.60E-04	0.0900	0.3943	Controlled, AP-42, 9/98, Table 1.1-18
Chromium (VI)	7.90E-05	0.0274	0.1198	Controlled, AP-42, 9/98, Table 1.1-18
Cobalt	1.00E-04	0.0346	0.1517	Controlled, AP-42, 9/98, Table 1.1-18
Lead	4.20E-04	0.1454	0.6370	Controlled, AP-42, 9/98, Table 1.1-18
Manganese	4.90E-04	0.1697	0.7431	Controlled, AP-42, 9/98, Table 1.1-18
Nickel	2.80E-04	0.0970	0.4246	Controlled, AP-42, 9/98, Table 1.1-18
Selenium	1.30E-03	0.4501	1.9715	Controlled, AP-42, 9/98, Table 1.1-18
Total HAPs		471.66	2,066	lb/hr & TPY
Single HAP		415.50	1,820	lb/hr & TPY

Uncontrolled PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	166,823	38,369	10,009	293,912	22,749	90.99	758.29
Fuel Oil Combustion	346.65	173.32	43.33	7,384	4,160	34.66	866.61
Worst Case	166,823	38,369	10,009	293,912	22,749	90.99	866.61

Limited PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	2,427	38,369	10,009	29,118	16,986	90.99	758.29
Fuel Oil Combustion	346.65	173.32	43.33	7,384	4,160	34.66	866.61
Worst Case	2,427	38,369	10,009	29,118	16,986	90.99	866.61

Technical Support Document - Appendix A - Emission Calculations

Boiler - Unit #4

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Coal Combustion			
Heat Input Capacity	5,550 MMBtu/hr	**Permit Limits**	
Coal Heat Content	8,000 Btu/lb Coal	SO2 (Coal)	1.20 lb/MMBtu
Coal Throughput	3,038,625 tons/yr	SO2 (Fuel Oil)	0.50 lb/MMBtu
Sulfur Wt%	5.10%	PM	0.10 lb/MMBtu
% Ash	11.00%	NOx (Coal)	0.70 lb/MMBtu
		NOx (Fuel Oil)	0.30 lb/MMBtu

Uncontrolled Potential to Emit

Pollutant	Emission Factor (lb/ton)	PTE (ton/yr)	Emission Factor Source
PM	110.00	167,124	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM10	25.30	38,439	AP-42, 9/98, Table 1.1-4, SCC 1-01-002-02/22
PM2.5	6.60	10,027	AP-42, 9/98, Table 1.1-6
SO2	193.80	294,443	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16
NOx	15.00	22,790	AP-42, 9/98, Table 1.1-3, SCC 1-02-002-12
VOC	0.06	91.16	AP-42, 9/98, Table 1.1-19, SCC 1-01-002-12
CO	0.50	759.66	AP-42, 9/98, Table 1.1-3, SCC 1-03-002-16

Potential to Emit after Issuance (PTE)

Pollutant	PTE (ton/yr)
PM	167,124
PM10 (Fil+Cond)	38,439
PM2.5	10,027
VOC	91.16
CO	759.66

Pollutant	Emission Limit (lb/MMBtu)	Limited PTE (lb/hr)	Limited PTE (ton/yr)
NOx	0.70	3,885	17,016
PM	0.10	555	2,431
SO2	1.20	6,660	29,171

Methodology:

PTE (ton/yr) = throughput (TPY) * E.F. (lb/ton) / 2,000 lb/ton
PTE (lb/hr) = PTE (TPY) * 2,000 lb/ton / 8,760 hr/yr
Limited PTE (TPY) = [Heat input (MMBtu/hr) * Limit (lb/MMBtu) * 8,760 hr/yr] / 2,000 lb/ton

Boiler - Unit #4 - Continued

Fuel Oil Combustion	
Heat Input Capacity	5,550.00 MMBtu/hr
Fuel Oil Throughput	347,271.43 Kgal/yr
Wt% Sulfur	0.30%

Uncontrolled Potential to Emit			
Pollutant	**Emission Factor (lb/Kgal)**	**PTE (ton/yr)**	**Emission Factor Source**
PM	2.00	347.27	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
PM10 (Fil+Cond)	1.00	173.64	AP-42, Table 1.3-6, 5/10
PM2.5	0.25	43.41	AP-42, Table 1.3-6, 5/10
SO2	42.60	7,397	AP-42, Table 1.3-1, 5/10, SCC 1-01-005-01
NOx	24.00	4,167	AP-42, Table 1.3-1, 5/10, SCC 1-02-005-01
VOC	0.20	34.73	AP-42,Table 1.3-3,5/10,SCC1-02-005-01/02/03
CO	5.00	868.18	AP-42, Table 1.3-1, 5/10, SCC 1-03-005-01

Potential to Emit after Issuance (PTE)	
Pollutant	**PTE (ton/yr)**
PM	347.27
PM10	173.64
PM2.5	43.41
SO2	7,397
NOx	4,167
VOC	34.73
CO	868.18

326 IAC 7-1.1 Limitation		
Pollutant	**Emission Limitation (lb/MMBtu)**	**Limited PTE (TPY)**
SO2	0.50	12,155

40 CFR 60, Subpart D Limits		
Pollutant	**Limit lb/MMBtu**	**Limited PTE TPY**
NOx	0.30	7,292.70
PM	0.10	2,430.90

Notes:
1) Coal combustion produces the worst case emissions for all pollutants except CO.
2) PTE and Limited PTE will be controlled by coal combustion for all pollutants except CO.
3) The potential to emit using fuel oil is less than the allowable emissions under 326 IAC 7-1.1 for SO2. The potential to emit after issuance will be shown as the PTE of the emission unit . The NSPS limit for SO2 is higher than the 326 IAC 7-1.1 limit and is not shown.
4) The PTE of NOx and PM are lower than the 40 CFR 60, Subpart D Limits. Therefore, the PTE after issuance is shown as the PTE.

Boiler - Unit #4 - Continued

Coal Combustion - HAP Emissions

Coal Throughput 3,038,625.00 tons/yr

Controlled Potential to Emit

Pollutant	Emission Factor (lb/ton coal)	PTE (lb/hr)	PTE (ton/yr)	Emission Factor Source
Total Dioxins-Furans	1.79E-09	6.21E-07	2.72E-06	Controlled, AP-42, 9/98, Table 1.1-12
Biphenyl	1.70E-06	5.90E-04	2.58E-03	Controlled, AP-42, 9/98, Table 1.1-13
Naphthalene	1.30E-05	0.0045	0.0198	Controlled, AP-42, 9/98, Table 1.1-13
Acetaldehyde	5.70E-04	0.1977	0.8660	Controlled, AP-42, 9/98, Table 1.1-14
Acetophenone	1.50E-05	0.0052	0.0228	Controlled, AP-42, 9/98, Table 1.1-14
Acrolein	2.90E-04	0.1006	0.4406	Controlled, AP-42, 9/98, Table 1.1-14
Benzene	1.30E-03	0.4509	1.9751	Controlled, AP-42, 9/98, Table 1.1-14
Benzyl Chloride	7.00E-04	0.2428	1.0635	Controlled, AP-42, 9/98, Table 1.1-14
Bis (2-ethylhexyl) phthalate	7.30E-05	0.0253	0.1109	Controlled, AP-42, 9/98, Table 1.1-14
Bromoform	3.90E-05	0.0135	0.0593	Controlled, AP-42, 9/98, Table 1.1-14
Carbon disulfide	1.30E-04	0.0451	0.1975	Controlled, AP-42, 9/98, Table 1.1-14
2-Chloroacetophenone	7.00E-06	0.0024	0.0106	Controlled, AP-42, 9/98, Table 1.1-14
Chlorobenzene	2.20E-05	0.0076	0.0334	Controlled, AP-42, 9/98, Table 1.1-14
Chloroform	5.90E-05	0.0205	0.0896	Controlled, AP-42, 9/98, Table 1.1-14
Cumene	5.30E-06	0.0018	0.0081	Controlled, AP-42, 9/98, Table 1.1-14
Cyanide	2.50E-03	0.8672	3.7983	Controlled, AP-42, 9/98, Table 1.1-14
2,4-Dinitrotoluene	2.80E-07	9.71E-05	4.25E-04	Controlled, AP-42, 9/98, Table 1.1-14
Dimethyl sulfate	4.80E-05	0.0167	0.0729	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl benzene	9.40E-05	0.0326	0.1428	Controlled, AP-42, 9/98, Table 1.1-14
Ethyl chloride	4.20E-05	0.0146	0.0638	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dichloride	4.00E-05	0.0139	0.0608	Controlled, AP-42, 9/98, Table 1.1-14
Ethylene dibromide	1.20E-06	4.16E-04	1.82E-03	Controlled, AP-42, 9/98, Table 1.1-14
Formaldehyde	2.40E-04	0.0833	0.3646	Controlled, AP-42, 9/98, Table 1.1-14
Hexane	6.70E-05	0.0232	0.1018	Controlled, AP-42, 9/98, Table 1.1-14
Isophorone	5.80E-04	0.2012	0.8812	Controlled, AP-42, 9/98, Table 1.1-14
Methyl bromide	1.60E-04	0.0555	0.2431	Controlled, AP-42, 9/98, Table 1.1-14
Methyl chloride	5.30E-04	0.1838	0.8052	Controlled, AP-42, 9/98, Table 1.1-14
Methyl hydrazine	1.70E-04	0.0590	0.2583	Controlled, AP-42, 9/98, Table 1.1-14
Methyl methacrylate	2.00E-05	0.0069	0.0304	Controlled, AP-42, 9/98, Table 1.1-14
Methylene chloride	2.90E-04	0.1006	0.4406	Controlled, AP-42, 9/98, Table 1.1-14
Phenol	1.60E-05	0.0056	0.0243	Controlled, AP-42, 9/98, Table 1.1-14
Propionaldehyde	3.80E-04	0.1318	0.5773	Controlled, AP-42, 9/98, Table 1.1-14
Tetrachloroethylene	4.30E-05	0.0149	0.0653	Controlled, AP-42, 9/98, Table 1.1-14
Toluene	2.40E-04	0.0833	0.3646	Controlled, AP-42, 9/98, Table 1.1-14
1,1,1-Trichloroethane	2.00E-05	0.0069	0.0304	Controlled, AP-42, 9/98, Table 1.1-14
Styrene	2.50E-05	0.0087	0.0380	Controlled, AP-42, 9/98, Table 1.1-14
Xylenes	3.70E-05	0.0128	0.0562	Controlled, AP-42, 9/98, Table 1.1-14
Vinyl acetate	7.60E-06	2.64E-03	1.15E-02	Controlled, AP-42, 9/98, Table 1.1-14
Hydrogen Chloride	1.20E+00	416.2500	1,823.1750	Controlled, AP-42, 9/98, Table 1.1-15
Hydrogen Fluoride	1.50E-01	52.0313	227.8969	Controlled, AP-42, 9/98, Table 1.1-15
Antimony	1.85E-05	0.0064	0.0281	Controlled, AP-42, 9/98, Table 1.1-18
Arsenic	4.10E-04	0.1422	0.6229	Controlled, AP-42, 9/98, Table 1.1-18
Beryllium	2.10E-05	0.0073	0.0319	Controlled, AP-42, 9/98, Table 1.1-18
Cadmium	5.10E-05	0.0177	0.0775	Controlled, AP-42, 9/98, Table 1.1-18
Chromium	2.60E-04	0.0902	0.3950	Controlled, AP-42, 9/98, Table 1.1-18
Chromium (VI)	7.90E-05	0.0274	0.1200	Controlled, AP-42, 9/98, Table 1.1-18
Cobalt	1.00E-04	0.0347	0.1519	Controlled, AP-42, 9/98, Table 1.1-18
Lead	4.20E-04	0.1457	0.6381	Controlled, AP-42, 9/98, Table 1.1-18
Manganese	4.90E-04	0.1700	0.7445	Controlled, AP-42, 9/98, Table 1.1-18
Nickel	2.80E-04	0.0971	0.4254	Controlled, AP-42, 9/98, Table 1.1-18
Selenium	1.30E-03	0.4509	1.9751	Controlled, AP-42, 9/98, Table 1.1-18
Total HAPs		472.52	2,070	lb/hr & TPY
Single HAP		416.25	1,823	lb/hr & TPY

Uncontrolled PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	167,124	38,439	10,027	294,443	22,790	91.16	759.66
Fuel Oil Combustion	347.27	174	43	7,397	4,167	34.73	868.18
Worst Case	167,124	38,439	10,027	294,443	22,790	91.16	868.18

Limited PTE Summary - Coal vs Fuel Oil

Pollutant	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Coal Combustion	2,431	38,439	10,027	29,171	17,016	91.16	759.66
Fuel Oil Combustion	347.27	173.64	43.41	7,397	4,167	34.73	868.18
Worst Case	2,431	38,439	10,027	29,171	17,016	91.16	868.18

Technical Support Document - Appendix A - Emission Calculations

Diesel-Fired Emergency Generator - Unit PB-2

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Maximum Generator Heat Input Rate	28.40	MMBtu/hr
Hours of Operation	500.00	hrs
Maximum Sulfur Content	0.3%	

Pollutant	Emission Factor (lb/MMBtu)	Uncontrolled PTE (TPY)	Emission Factor Source
PM	0.070	0.50	AP-42, Chapter 3.4, 10/96, Table 3.4-2
PM2.5/10	0.057	0.40	AP-42, Chapter 3.4, 10/96, Table 3.4-2
SO2	0.303	2.15	AP-42, Chapter 3.4, 10/96, Table 3.4-1
NOx	3.200	22.72	AP-42, Chapter 3.4, 10/96, Table 3.4-1
VOC	0.080	0.57	AP-42, Chapter 3.4, 10/96, Table 3.4-1
CO	0.850	6.04	AP-42, Chapter 3.4, 10/96, Table 3.4-1
Benzene	7.76E-04	0.0055	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Toluene	2.81E-04	0.0020	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Xylene	1.93E-04	0.0014	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Formaldehyde	7.89E-05	0.0006	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acetaldehyde	2.52E-05	0.0002	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acrolein	7.88E-06	0.0001	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Naphthalene	1.30E-04	0.0009	AP-42, Chapter 3.4, 10/96, Table 3.4-2

Highest HAP	Benzene	0.006 TPY
Total HAP		0.011 TPY

Technical Support Document - Appendix A - Emission Calculations

Diesel-Fired Emergency Generator - Unit PB-3

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Maximum Generator Heat Input Rate	28.40	MMBtu/hr
Hours of Operation	500.00	hrs
Maximum Sulfur Content	0.3%	

Pollutant	Emission Factor (lb/MMBtu)	Uncontrolled PTE (TPY)	Emission Factor Source
PM	0.070	0.50	AP-42, Chapter 3.4, 10/96, Table 3.4-2
PM2.5/10	0.057	0.40	AP-42, Chapter 3.4, 10/96, Table 3.4-2
SO2	0.303	2.15	AP-42, Chapter 3.4, 10/96, Table 3.4-1
NOx	3.200	22.72	AP-42, Chapter 3.4, 10/96, Table 3.4-1
VOC	0.080	0.57	AP-42, Chapter 3.4, 10/96, Table 3.4-1
CO	0.850	6.04	AP-42, Chapter 3.4, 10/96, Table 3.4-1
Benzene	7.76E-04	0.0055	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Toluene	2.81E-04	0.0020	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Xylene	1.93E-04	0.0014	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Formaldehyde	7.89E-05	0.0006	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acetaldehyde	2.52E-05	0.0002	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acrolein	7.88E-06	0.0001	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Naphthalene	1.30E-04	0.0009	AP-42, Chapter 3.4, 10/96, Table 3.4-2

Highest HAP	Benzene	0.006 TPY
Total HAP		0.011 TPY

Technical Support Document - Appendix A - Emission Calculations

Diesel-Fired Emergency Generator - Unit PB-4

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 9, 2011

Maximum Generator Heat Input Rate	28.40	MMBtu/hr
Hours of Operation	500.00	hrs
Maximum Sulfur Content	0.3%	

Pollutant	Emission Factor (lb/MMBtu)	Uncontrolled PTE (TPY)	Emission Factor Source
PM	0.070	0.50	AP-42, Chapter 3.4, 10/96, Table 3.4-2
PM2.5/10	0.057	0.40	AP-42, Chapter 3.4, 10/96, Table 3.4-2
SO2	0.303	2.15	AP-42, Chapter 3.4, 10/96, Table 3.4-1
NOx	3.200	22.72	AP-42, Chapter 3.4, 10/96, Table 3.4-1
VOC	0.080	0.57	AP-42, Chapter 3.4, 10/96, Table 3.4-1
CO	0.850	6.04	AP-42, Chapter 3.4, 10/96, Table 3.4-1
Benzene	7.76E-04	0.0055	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Toluene	2.81E-04	0.0020	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Xylene	1.93E-04	0.0014	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Formaldehyde	7.89E-05	0.0006	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acetaldehyde	2.52E-05	0.0002	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Acrolein	7.88E-06	0.0001	AP-42, Chapter 3.4, 10/96, Table 3.4-2
Naphthalene	1.30E-04	0.0009	AP-42, Chapter 3.4, 10/96, Table 3.4-2

Highest HAP	Benzene	0.006 TPY
Total HAP		0.011 TPY

Technical Support Document - Appendix A - Emission Calculations
Material Handling Operation

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana
Permit Number: 47567
Plt ID: T 125-30045-00002
Reviewer: 125-00002
Date: David J. Matousek

		Limestone Conveyance	Gypsum Conveyance	Limestone Silos	Limestone Ball Mills	Coal Unloading	Enclosed Coal Conveyance	Unenclosed Coal Conveyance
Throughput (TPY)		1,206,252	2,629,752	1,206,252	1,206,252	11,388,000	11,388,000	11,388,000
k	PM	0.740	0.740	0.740	0.740	0.740	0.740	0.740
	PM10	0.350	0.350	0.350	0.350	0.350	0.350	0.350
	PM2.5	0.053	0.053	0.053	0.053	0.053	0.053	0.053
U - Conveyor Speed (MPH)		1	1	8	1	8	1	8
M - Moisture %		0.70	7.00	0.70	0.70	4.80	4.80	4.80
PM Emission Factor (lb/ton)		0.00127	0.00005	0.01897	0.00127	0.00128	0.00009	0.00128
PM10 Emission Factor (lb/ton)		0.00060	0.00002	0.00897	0.00060	0.00061	0.00004	0.00061
PM2.5 Emission Factor (lb/ton)		0.00009	4.00E-06	0.00136	0.00009	0.00009	0.00001	0.00009
Transfer Points		7.0	7.0	2.0	1.0	1.0	15.0	10.0

Uncontrolled PTE (TPY)								Totals
PM PTE (ton/yr)	5.36	0.46	22.88	0.77	7.29	7.69	72.88	**117.33**
PM10 PTE (ton/yr)	2.53	0.18	10.82	0.36	3.47	3.42	34.73	**55.52**
PM2.5 PTE (ton/yr)	0.38	0.04	1.64	0.05	0.51	0.85	5.12	**8.60**

Methodology:
Emission Factor = (k)(0.0032)[(U/5)^1.3 / (M/2)^1.4] , AP-42, Chapter 13.2.4, 11/06
PTE = Emission Factor (lb/ton) x Throughput (ton/yr) x Transfer Points x (1 ton / 2,000 lb)

Technical Support Document - Appendix A - Emission Calculations

Fly Ash Handling Operations

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 13, 2011

Maximum Filling Rate Ash Silo 3	200.00	ton/hr		
Maximum Daily Ash Production to Ash Silo 3	700.00	ton/day		
Maximum Hours of Operation for Ash Silo 3	3.50	hr/day	1,277.50	hr/yr

PM Emissions							
Process	**Max Throughput (tons/hr)**	**Emission Factor (lb/ton)**	**Transfer Points**	**PTE (lb/hr)**	**PTE (tons/yr)**	**PSD Minor Limit (lb/hr)**	**Limited PTE (ton/yr)**
Ash Silo 3 to Railcar Loading	200.00	3.14	1.50	942.00	601.70	5.69	24.92
Railcar Loading Operation (BH-N)	37.50	0.61	1.00	22.88	100.21	5.68	24.88
Totals				964.88	701.91		49.80

PM10/2.5 Emissions							
Process	**Max Throughput (tons/hr)**	**Emission Factor (lb/ton)**	**Transfer Points**	**PTE (lb/hr)**	**PTE (tons/yr)**	**PSD Minor Limit (lb/hr)**	**Limited PTE (ton/yr)**
Ash Silo 3 to Railcar Loading	200.00	1.10	1.50	330.00	210.79	3.40	14.89
Railcar Loading Operation (BH-N)	37.50	0.61	1.00	22.88	100.21	3.40	14.89
Total				352.88	311.00		29.78

PTE HAP			
	HAP Concentration (ppm)	**PTE HAP (ton/yr)**	**Limited PTE HAP (TPY)**
Arsenic	52	0.036	0.0026
Beryllium	3	0.00	0.0001
Cadmium	4	0.00	0.0002
Chromium	39	0.03	0.0019
Cobalt	8	0.01	0.0004
Lead	22	0.02	0.0011
Manganese	59	0.041	0.0029
Mercury	0	0.00	0.0000
Nickel	32	0.02	0.0016
Total HAP (TPY)		**0.15**	**0.0108**

Methodology:
1) PTE (lb/hr) = emission factor (lb/ton) x throughput (ton/hr)
2) PTE (TPY) = PTE (lb/hr) x operation hr/yr x 1 ton/2,000 lb
   Silo 3 - 1,277.50 hr/yr
   BH-N - 8,760 hr/yr
3) Limited PTE is from the PSD Minor Limit
4) PTE HAP (TPY) = PTE PM (TPY) x HAP concent. (ppm) / 1,000,000
5) Limited PTE HAP (TPY) = Limited PTE PM x HAP concent (ppm) / 1,000,000

Notes:
1) HAP conentration was provided by the source from a lab analysis.
2) Ash silo 3 emission factors are from AP-42 , Table 11.12-2 10/2001, pneumatic conveyance of cement.
3) Railcar loadout (BH-N) emission factor is from AP-42, Table 11.17-4, for lime loadout.
4) 1.5 transfer points are shown for Silo 3 because 1/2 of the fly ash can be transfered from Silo 3 to Silo 4.

Fly Ash Handling Operations - Continued

326 IAC 6-3-2 Emission Limit Calculation

Process	Max Throughput (tons/hr)	Equation	Uncontrolled PTE (lb/hr)	326 IAC 6-3-2 Limit (lb/hr)	Control Needed for PSD Minor Limit	PSD Minor Limit (lb/hr)	Limit Comply 326 IAC 6-3-2
Ash Silo 3 to Railcar Loading	200.00	B	942.00	58.51	YES	5.69	YES
Railcar Loading Operation (BH-N)	37.50	B	22.88	41.94	YES	5.68	YES

*Emissions from these units are limited by and established PSD Minor Limit. [326 IAC 2-2]

**Ash Silo 3 requires a control device to comply with 326 IAC 6-3-2.

***Railcar Loading Operation (BH-N) does not require a control device to comply with 326 IAC 6-3-2.

Equation A - Process Weight Rates up to 60,000 lb/hr

E = 4.1 x (P)^0.67

Equation B - Process Weight Rates in excess of 60,000 lb/hr

E = [55 x (P)^0.11] - 40

Where: E = Allowable Emission Rate for PM (lb/hr)

P = Process Weight Rate (tons/hr)

Technical Support Document - Appendix A - Emission Calculations

Coal Storage Pile - Wind Erosion

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 13, 2011

A = Storage Area	30.00	acres
s = Coal Silt Content	2.20	wt %
p = Days > 0.01" rain	125.00	days
f = Days wind > 12 mph	15.00	days
PM 10 % of PM	35.00%	

Emission Factor Calculation

Ef = 1.7 x (s/1.5) x (365 - p) / 235 x (f / 15) AP-42, Section 11.2.3.3, May 1983, Equation 3

Ef = 2.546 lb/acre/day (Total Suspended Particulate/PM)

PM/PM10/PM2.5 Emissions

TSP / PM (ton/yr) = Ef (lb/acre/day) x A (acres) x 365 days/yr x 1 ton/2,000 lb

PM10 = 0.5 x TSP (AP-42, Section 13.2.5.3, May 1983)

PM2.5 = 0.15 x PM10 (AP-42, Section 13.2.5.3, May 1983)

PM / TSP = 2.546 x 30 x 365 x 1/2000 = 13.94 TPY

PM10 = 0.5 x 13.94 = 6.97 TPY

PM2.5 = 0.15 x 6.97 1.05 TPY

Technical Support Document - Appendix A - Emission Calculations

Wet Cooling Tower

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 13, 2011

Circulation Rate (Q)	224,939	gpm
Density of Water	8.34	lb/gallon
Drift Rate	0.001	%
Total Dissolved Solids (TDS)	2,000	ppm
Hours of Operation (hr/yr)	8,760	hr

PM Emissions

PTE PM (lb/hr) = Q (gpm) x Density (lb/gal) x [Drift Rate (%) / 100] x [TDS (ppm) / 1,000,000] x 60 min/hr

PTE PM =	2.25	lb/hr
PTE PM =	9.86	TPY

PM10 Emissions

PTE PM10/2.5 = PTE PM x 85%

PTE PM10/2.5 =	1.91	lb/hr
PTE PM10/2.5 =	8.38	TPY

Technical Support Document - Appendix A - Emission Calculation Sheet
Fugitive Emissions from Paved Roads

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: June 13, 2011

Average Vehicle Weight Calculation

Vehicle Type	Trucks/Day	Average Weight (tons)	Total Trips per Year	Miles per Trip	Vehicle Miles Traveled (miles per year)	Traffic Component (%)	Component Weight (tons)
Semi - Truck	1200	13.5	438,000	0.9	394,200	100.000%	13.50
				Total VMT	394,200		
				Average Vehicle Weight (tons) - W			13.50

Site Specific Constants

Value Name	Symbol	Value	Units	Source
Emission Factor	E	---	lb/VMT	Calculated
Particle Size Multiplier	k for PM	0.011	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Particle Size Multiplier	k for PM10	0.0022	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Particle Size Multiplier	k for PM2.5	0.00054	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Silt Loading	sL (Winter)	25	g/cubic meter	Previous Determination
Silt Loading	sL (Non-Winter)	25	g/cubic meter	Previous Determination
Winter Days	Winter Days	90	days	Estimated by IDEM
Non-Winter Days	Non-Winter Days	275	days	Estimated by IDEM
Days >0.01" of rain	P	125	days	AP-42, Figure 13.2.1-2, January 2011
Total Days in Period	N	365	days	Days in the period
Mean Vehicle Weight	W	13.50	tons	Calculated above

Winter Emission Factor Calculations

E = [k * (sL for winter)^0.91 * (W)^1.02] * [1 - P/(4 * N)] AP-42, Chapter 13.2.1-5, January 2011, Eq. 2

E for PM (lb/VMT) = 2.68 lb/VMT
E for PM10 (lb/VMT) = 0.54 lb/VMT
E for PM2.5 (lb/VMT) = 0.13 lb/VMT

Non-Winter Emission Factor Calculations

E = [k * (sL for non-winter)^0.91 * (W)^1.02] * [1 - P/(4 * N)] AP-42, Chapter 13.2.1-5, January 2011, Eq. 2

E for PM (lb/VMT) = 2.68 lb/VMT
E for PM10 (lb/VMT) = 0.54 lb/VMT
E for PM2.5 (lb/VMT) = 0.13 lb/VMT

Annual Average Emission Factors

Annual Average Emission Factor = [Winter Days * Winter Factor + Non-Winter Days * Non-Winter Factor] / 365

E for PM (lb/VMT) = 2.68 lb/VMT
E for PM10 (lb/VMT) = 0.54 lb/VMT
E for PM2.5 (lb/VMT) = 0.13 lb/VMT

Uncontrolled Potential to Emit

PM Emissions (TPY) = [Annual Average E for PM (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb] 528.23 TPY
PM10 Emissions (TPY) = [Annual Average E for PM10 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb] 106.43 TPY
PM2.5 Emissions (TPY) = [Annual Average E for PM2.5 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb] 25.62 TPY

Limited Potential to Emit

Control Efficiency 50.00% [326 IAC 6-4][326 IAC 6-5]

Limited PM Emissions (TPY) = Potential to Emit PM * (1 - Control Efficiency) 264.12 TPY
Limited PM10 Emissions (TPY) = Potential to Emit PM10 * (1 - Control Efficiency) 53.22 TPY
Limited PM2.5 Emissions (TPY) = Potential to Emit PM2.5 * (1 - Control Efficiency) 12.81 TPY

Technical Support Document - Appendix A - Emission Calculation Sheet
Green House Gas Emissions - Utility Boilers

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: July 11, 2011

Coal Combustion							
Emission Unit	Coal Throughput (ton/yr)	CO_2 Emission Factor (lb/ton)	CH_4 Emission Factor (lb/ton)	N_2O Emission Factor (lb/ton)	CO_2 Emissions (ton/yr)	CH_4 Emissions (ton/yr)	N_2O Emissions (ton/yr)
Boiler Unit 1	1,204,500	4,810	0.04	0.08	2,896,823	24	48
Boiler Unit 2	2,268,840	4,810	0.04	0.08	5,456,560	45	91
Boiler Unit 3	3,033,150	4,810	0.04	0.08	7,294,726	61	121
Boiler Unit 4	3,038,625	4,810	0.04	0.08	7,307,893	61	122

Fuel Oil Combustion							
Emission Unit	Oil Throughput (kgal/yr)	CO_2 Emission Factor (lb/kgal)	CH_4 Emission Factor (lb/kgal)	N_2O Emission Factor (lb/kgal)	CO_2 Emissions (ton/yr)	CH_4 Emissions (ton/yr)	N_2O Emissions (ton/yr)
Boiler Unit 1	137,657	22,300	0.28	0.26	1,534,876	19	18
Boiler Unit 2	259,296	22,300	0.28	0.26	2,891,150	36	34
Boiler Unit 3	346,646	22,300	0.28	0.26	3,865,103	49	45
Boiler Unit 4	347,271	22,300	0.28	0.26	3,872,072	49	45

Greenhouse Gas Emissions - CO_2e Calculation							
	Worst Case Emissions			Global Warming Potential			CO_2e (TPY)
	CO_2 Emissions (ton/yr)	CH_4 Emissions (ton/yr)	N_2O Emissions (ton/yr)	CO_2 (Unitless)	CH_4 (Unitless)	N_2O Emissions (Unitless)	
Boiler Unit 1	2,896,823	24	48	1	21	310	2,912,207
Boiler Unit 2	5,456,560	45	91	1	21	310	5,485,715
Boiler Unit 3	7,294,726	61	121	1	21	310	7,333,517
Boiler Unit 4	7,307,893	61	122	1	21	310	7,346,994

Notes:
1) Emission Factors for Coal Combustion are from AP-42, Chapter 1.1, Tables 1.1-19 and 1.1-20, 9/98.
2) Emission Factors for Fuel Oil Combustion are from AP-42, Chapter 1.3, Tables 1.3-3, 1.3-8 and 1.3-12, 5/10.

Methodology:
1) PTE (TPY) = (throughput x emission factor) / 2,000lb per ton
2) CO_2e = sum(pollutant emissions x global warming potential)

Technical Support Document - Appendix A - Emission Calculation Sheet
Green House Gas Emissions - Emergency Generators

Company Name: Indianapolis Power & Light Company - Petersburg Generating Station
Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Permit Number: T 125-30045-00002
Plt ID: 125-00002
Reviewer: David J. Matousek
Date: July 11, 2011

Convert Emission Factors - Kg/MMBtu to lb/MMBtu							
Emission Unit Type	Fuel Type	CO_2 Emission Factor (Kg/MMBtu)	CH_4 Emission Factor (Kg/MMBtu)	N_2O Emission Factor (Kg/MMBtu)	CO_2 Emission Factor (lb/MMBtu)	CH_4 Emission Factor (lb/MMBtu)	N_2O Emission Factor (lb/MMBtu)
Emergency Generators	No. 2 Fuel Oil	73.96	3.00E-03	6.00E-04	162.71	0.007	0.001

Greenhouse Gas Emissions (TPY)							
Emission Unit	Heat Input Capacity (MMBtu/hr)	CO_2 Emission Factor (lb/MMBtu)	CH_4 Emission Factor (lb/MMBtu)	N_2O Emission Factor (lb/MMBtu)	CO_2 Emissions (ton/yr)	CH_4 Emissions (ton/yr)	N_2O Emissions (ton/yr)
Emergency Generator PB-2	28.4	162.71	0.007	0.001	1,155	0.05	0.01
Emergency Generator PB-3	28.4	162.71	0.007	0.001	1,155	0.05	0.01
Emergency Generator PB-4	28.4	162.71	0.007	0.001	1,155	0.05	0.01

Greenhouse Gas Emissions - CO_2e Calculation							
	Worst Case Emissions			Global Warming Potential			CO_2e (ton/yr)
	CO_2 Emissions (ton/yr)	CH_4 Emissions (ton/yr)	N_2O Emissions (ton/yr)	CO_2 (Unitless)	CH_4 (Unitless)	N_2O Emissions (Unitless)	
Emergency Generator PB-2	1,155	0.05	0.01	1	21	310	1,159
Emergency Generator PB-3	1,155	0.05	0.01	1	21	310	1,159
Emergency Generator PB-4	1,155	0.05	0.01	1	21	310	1,159

Notes:
1) Metric Emission Factors for Fuel Oil Combustion are from 40 CFR 98, Subpart C, Table C-1 and C-2

Methodology:
1) PTE (TPY) = (throughput x emission factor) / 2,000lb per ton
2) CO_2e = sum(pollutant emissions x global warming potential)
3) English Emission Factor (lb/MMBtu) = Metric Emission Factor (kg/MMBtu) x 2.2 lb/Kg

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Jeffrey Harter
Indianapolis Power and Light – Petersburg Generating Station
PO Box 436
Petersburg, Indiana 47567

DATE: July 18, 2013

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

SUBJECT: Final Decision
Title V – Renewal
125-30045-00002

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:
Angelique Oliger / IPL
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 6/13/2013

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

July 18, 2013

TO: Pike County Public Library

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

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

Applicant Name: IPL – Petersburg Generating Station
Permit Number: 125-30045-00002

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 6/13/2013

Mail Code 61-53

IDEM Staff	AWELLS 7/18/2013 Indianapolis Power and Light - Petersburg Generating Station 125-30045-00002 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	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing 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		Jeffrey A Harter Indianapolis Power and Light - Petersburg Generati PO Box 436 Petersburg IN 47567 (Source CAATS) confirmed delivery									
2		Nonresponsive [redacted] *(Affected Party)*									
3		Nonresponsive [redacted] *(Affected Party)*									
4		Pike County Commissioners 801 Main Street Petersburg IN 47567 *(Local Official)*									
5		Petersburg City Council and Mayors Office 704 Main St, City Hall Petersburg IN 47567 *(Local Official)*									
6		Pike County Health Department 801 Main St, Courthouse Petersburg IN 47567-1298 *(Health Department)*									
7		Pike County Public Library 1008 E. Maple Street Petersburg IN 47567-1337 *(Library)*									
8		Nonresponsive [redacted] *(Affected Party)*									
9		Nonresponsive [redacted] *(Affected Party)*									
10		Nonresponsive [redacted] *(Affected Party)*									
11		Nonresponsive [redacted] *(Affected Party)*									
12		Mr. David C. Bender McGillivray Westerberg & Bender LLC 305 S Paterson St Madison WI 53703 *(Affected Party)*									
13		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)									
14		Ms. Angelique Oliger IPL One Monument Circle Indianapolis IN 46204 *(Consultant)*									
15		Nonresponsive [redacted] *(Affected Party)*									

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Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing 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		Nachy Kanfer, Campaign Representative, Midwest States Sierra Club Beyond Coal Campaign 131 N. High St., Suite 605 Columbus OH 43215 (Affected State)									
2		Nonresponsive [redacted] *(Affected Party)*									
3											
4											
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