



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: July 12, 2005

RE: PSI Energy - Cayuga ( Cinergy Group) / 165-19845-00001

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### **Notice of Decision: Approval – Effective Immediately**

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### PSI Energy, Inc. - Cayuga Generating Station State Road 63 Cayuga, Indiana 47928

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T165-7174-00001	
Issued by: Original Signed by Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: September 14, 2004  Expiration Date: September 14, 2009

First Significant Permit Modification No.: 165-19845-00001	
Original signed by:  Paul Dubenetzy, Branch Chief Office of Air Quality	Issuance Date: July 12, 2005

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**Natural Gas Fired Boiler Certification**

**Quarterly Report**

**Quarterly Deviation and Compliance Monitoring Report**

**Appendix A: Acid Rain Permit**

## SECTION A SOURCE SUMMARY

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

- A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(21)]  
The Permittee owns and operates a stationary electric utility generating station.

Responsible Official:	Station Manager of the Cayuga Generating Station and Manager of the Cayuga combustion turbine
Source Address:	On S.R. 63, Cayuga, Indiana 47928
Mailing Address:	c/o Steven Pearl, 1000 East Main Street, Plainfield, Indiana 46168
Source Telephone:	(317) 838-1758
SIC Code:	4911
County Location:	Vermillion
Source Location Status:	Attainment or unclassifiable for all criteria pollutants
Source Status:	Part 70 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)]

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

- (a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, installed in 1967, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 1. Stack 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 1 was configured with a low NO<sub>x</sub> burner in 1993.
- (b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, installed in 1968, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 2. Stack 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 2 was configured with a low NO<sub>x</sub> burner in 1993.
- (c) One (1) natural gas and no. 2 fuel oil-fired combustion turbine, identified as Unit No. 4, installed in 1992, with a nominal heat input capacity of 1,297 million Btu per hour (MMBtu/hr), with hybrid burners to control NO<sub>x</sub> while burning natural gas and water injection for control of nitrogen oxides while combusting fuel oil, and exhausting to stack 4.
- (d) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3A, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3A.
- (e) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3B, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3B.
- (f) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3C, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3C.
- (g) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3D, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3D.

- (h) A dual conveyor coal processing system, with a nominal throughput of 1900 tons of coal per hour (950 tons of coal per hour each side), consisting of the following equipment:
  - (1) One (1) railcar unloading station, with a drop point to two (2) hoppers identified as DP-1, with the drop point enclosed with emissions uncontrolled, and exhausting to the ambient air.
  - (2) One (1) storage area, having a nominal storage capacity including the active piles of 982,800 tons, with fugitive emissions controlled as needed by a watering truck.
  - (3) One (1) enclosed hopper, with a drop point to a conveyor identified as DP-2, with the drop point enclosed with emissions controlled by a water spray dust suppression system as needed, and exhausting to the ambient air.
  - (4) One (1) enclosed hopper and two (2) reclaim feeders, with an underground drop points identified as DP-11 and DP-12, with emissions controlled by the underground enclosure, and routed to the conveyor system.
  - (5) An enclosed dual conveyor system, with 6 drop points identified as DP-3 through DP-6, DP-8, and DP-13, with each drop point enclosed with emissions controlled by the enclosure. Drop points DP-3 through DP-5, DP-8, and DP-13 are controlled as needed by a water spray dust suppression system, and DP-6 is controlled by rotoclones.
  - (6) An enclosed conveyor system with drop point identified as DP-9, controlled by a telescoping chute.
  - (7) Coal bunker and coal scale exhausts and associated dust collector vents.

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):

- (h) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve months, except if subject to 326 IAC 20-6.
- (i) One (1) fuel oil storage tank, identified as T-1, installed in 1992, with a capacity of 395,000 gallons, used to store fuel oil for the combustion turbine, and exhausting through vent T-1.
- (j) One (1) fuel oil-fired auxiliary boiler, identified as Aux-1, constructed before 1968, with a heat input capacity of 0.05 million Btu per hour, and exhausting to exhaust stack S-1.

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability); and
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3).

**SECTION B**

**GENERAL CONDITIONS**

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

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

**B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]**

This permit 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.3 Enforceability [326 IAC 2-7-7]**

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

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

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, or its equivalent, with each submittal requiring certification. One (1) certification can cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time

period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent; and
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3).

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s), by title or classification, responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions.
- (c) 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 submittal of the PMP and the PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance  
Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

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

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ , may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ , by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to Paragraph (b)(5) of this condition and certified by the Responsible Official need only be referenced by the date of the original report.

**B.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]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

**B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

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

**B.15** Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

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

**B.16** Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality

100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) 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.
- (2) If IDEM, OAQ, upon receiving a timely and complete 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3] [326 IAC 2-7-4]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by a reasonable deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application. [326 IAC 2-7-4(a)(2)(D) and (E)]
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]  
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.
- B.17 Source Modification [326 IAC 1-2-42] [326 IAC 2-7-10.5]
- (a) The Permittee shall obtain approval as required by 326 IAC 2-7-10.5 from the IDEM, OAQ prior to making any modification to the source. Pursuant to 326 IAC 1-2-42, "Modification" means one (1) or more of the following activities at an existing source:
- (1) A physical change or change in the method of operation of any existing emissions unit that increases the potential to emit any regulated pollutant that could be emitted from the emissions unit, or that results in emissions of any regulated pollutant not previously emitted.
- (2) Construction of one (1) or more new emissions units that have the potential to emit regulated air pollutants.
- (3) Reconstruction of one (1) or more existing emission units that increases the potential to emit of any regulated air pollutant.
- (b) Any application requesting a source modification shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]
- (c) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

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

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

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

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

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

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in 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.

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**B.21 Inspection and Entry [326 IAC 2-7-6]] [IC 13-14-2-2][IC 13-30-3-1] [IC 13-17-3-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the

information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records are physically present or electronically accessible under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

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Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

## 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 [40 CFR 52 Subpart P] [326 IAC 6-3-2]**
- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) 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. This condition is not federally enforceable.
- C.2 **Opacity [326 IAC 5-1]**
- Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- C.3 **Open Burning [326 IAC 4-1] [IC 13-17-9]**
- The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.
- C.4 **Incineration [326 IAC 4-2] [326 IAC 9-1-2]**
- The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.
- C.5 **Fugitive Dust Emissions [326 IAC 6-4]**
- The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.
- C.6 **Motor Vehicle Fugitive Dust Sources [326 IAC 6-4-4]**
- Pursuant to 326 IAC 6-4-4, no vehicle shall be driven or moved on any public street, road, alley, highway, or other thoroughfare, unless such vehicle is so constructed as to prevent its contents from dripping, sifting, leaking, or otherwise escaping therefrom so as to create conditions which result in fugitive dust. This section applies only to the cargo any vehicle may be conveying and mud tracked by the vehicle.
- C.7 **Stack Height [326 IAC 1-7]**
- The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC

1-7-1(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]**

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

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

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

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

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

**Compliance Requirements [326 IAC 2-1.1-11]**

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

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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)]**

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

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

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

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

- (a) The Permittee shall calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COM shall be in operation at all times that the induced draft fan is in operation.
- (b) All continuous opacity monitoring systems 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 continuous opacity monitoring system occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.
- (d) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of one (1) hour or more, compliance with the applicable opacity limits shall be demonstrated by the following:
  - (1) Visible emission (VE) notations shall be performed once per hour during daylight operations following the shutdown or malfunction of the primary COM. A trained employee shall record whether emissions are normal or abnormal for the state of operation of the emission unit at the time of the reading.
    - (A) 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.
    - (B) If abnormal emissions are noted during two consecutive emission notations, the Permittee shall begin Method 9 opacity observations within four hours of the second abnormal notation.
    - (C) VE notations may be discontinued once a COM is online or formal Method 9 readings have been implemented.
  - (2) If a COM is not online within twenty-four (24) hours of shutdown or malfunction of the primary COM, the Permittee shall provide certified opacity reader(s), who may be employees of the Permittee or independent contractors, to self-monitor the emissions from the emission unit stack.
    - (A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.
    - (B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least once every four (4)

hours during daylight operations, until such time that a COM is in operation.

- (C) Method 9 readings may be discontinued once a COM is online.
- (D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(3) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

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

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, 40 CFR 75, or other approved methods as specified in this permit.

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

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a voltage, current, temperature, or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on February 12, 1980. The plans (ERPs) were approved on March 19, 1980.
- (b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports  
[326 IAC 2-7-5] [326 IAC 2-7-6]

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan under 40 CFR 63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan to include such response steps taken.

The OMM Plan or Parametric Monitoring and SSM Plan shall be submitted within the time frames specified by the applicable 40 CFR 63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.

- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when the response steps required in Section D are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

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

- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

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

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

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

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

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- (d) Pursuant to 40 CFR 82, Subpart E (The Labeling of Products Using Ozone-Depleting Substances), all containers in which a Class I or Class II substance is stored or transported and all products containing a Class I substance shall be labeled as required under 40 CFR Part 82.

### **Ambient Monitoring Requirements [326 IAC 7-3]**

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

- (a) The Permittee shall operate continuous ambient sulfur dioxide air quality monitors and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).
- (b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]
- (c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

### **Part 2 MACT Application Submittal Requirement**

#### **C.24 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]**

- (a) The Permittee shall submit a Part 2 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).

- (b) Notwithstanding paragraph (a), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
- (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;
  - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or
  - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.
- (c) Notwithstanding paragraph (a), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Director, Air and Radiation Division  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

## SECTION D.1

## FACILITY OPERATION CONDITIONS

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

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, installed in 1967, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 1. Stack 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 1 was configured with a low NO<sub>x</sub> burner in 1993.

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

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

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c), the PM emissions from the Boiler No. 1 stack shall not exceed 0.227 pound per million Btu heat input (lbs/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 μ/m<sup>3</sup>  
Q = 9,604 MMBtu/hr (capacity of Boilers 1-2)  
N = 2 (number of stacks)  
a = 0.8  
h = 500 Feet (average stack height)

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

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

- (1) For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when building a new fire in Boiler No. 1, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed two (2) hours (20 six minute-averaged periods) or until the flue gas temperature entering the electrostatic precipitator (ESP) reaches 250 degrees Fahrenheit, whichever occurs first. For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when building a new fire in Boiler No. 2, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed three (3) hours (30 six minute-averaged periods) after the flue gas temperature entering the electrostatic precipitator (ESP) reaches 250 degrees Fahrenheit.
- (2) For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed three (3) hours (30 six minute-averaged periods) after the flue gas temperature entering the electrostatic precipitator (ESP) has dropped below 250 degrees Fahrenheit.
- (3) Following the expiration of the alternative limitations in (a)(1) and (a)(2) of this condition, when building a new fire in a boiler, or shutting down a boiler, opacity may exceed the 40% opacity limit established in 326 IAC 5-1-2; however, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.

- (4) Operation of the electrostatic precipitator is 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 periods 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.
- D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4-8]  
Pursuant to 326 IAC 7-4-8 (Vermillion County Sulfur Dioxide Emission Limitations), the SO<sub>2</sub> emissions from Boiler No. 1 shall not exceed 4.40 pounds per million Btu (lbs/MMBtu), demonstrated using a thirty (30) day rolling average. This limitation will ensure that SO<sub>2</sub> emissions do not exceed the amount assumed in the modeling analysis performed for the Vermillion County SO<sub>2</sub> SIP limits.
- D.1.4 Operation Standards [326 IAC 2-1.1-5(a)(4)] [40 CFR 261] [40 CFR 279] [329 IAC 13]
- (a) All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal.
  - (b) The burning of hazardous waste, as defined by 40 CFR 261, is prohibited in this facility. Any boiler tube chemical cleaning waste liquids, binding agent, or used oil combusted shall meet the toxicity characteristic requirements for non-hazardous waste.
  - (c) Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.
- D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
- (a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.
  - (b) The PMP for an electrostatic precipitator shall include the following inspections, performed according to the indicated schedules:
    - (1) Plate and electrode alignment, every major maintenance outage, but no less than every 2 years;
    - (2) ESP TR set components, performed whenever there is an outage of any nature lasting more than three days, unless such inspections have been performed within the last six months. At a minimum, the following inspections shall be performed:
      - (A) Internal inspection of shell for corrosion (including but not limited to doors, hatches, insulator housings, and roof area).
      - (B) Effectiveness of rapping (including but not limited to buildup of dust on discharge electrodes and plates).
      - (C) Gas distribution (including but not limited to buildup of dust on distribution plates and turning vanes).
      - (D) Dust accumulation (including but not limited to buildup of dust on shell and support members that could result in grounds or promote advanced corrosion).

- (E) Major misalignment of plates (including but not limited to a visual check of plate alignment).
  - (F) Rapper, vibrator and TR set control cabinets (including but not limited to motors and lubrication).
  - (G) Rapper assembly (including but not limited to loose bolts, ground wires, water in air lines, and solenoids).
  - (H) Vibrator and rapper seals (including but not limited to air in-leakage, wear, and deterioration).
  - (I) TR set controllers (including but not limited to low voltage trip point, over current trip point, and spark rate).
  - (J) Vibrator air pressure settings.
- (3) Air and water infiltration, once per month. The recommended method for this inspection is for audible checks around ash hoppers/hatches, duct expansion joints, and areas of corrosion.

### Compliance Determination Requirements

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

Within the two (2) calendar years following the most recent stack test, compliance with the PM limitation in Condition D.1.1 shall be determined by a performance stack test conducted 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.

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

#### D.1.7 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]

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

#### D.1.8 Continuous Emissions Monitoring [326 IAC 3-5]

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

#### D.1.9 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(A)] [326 IAC 2-7-6]

- (a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions from Unit 1 do not exceed the equivalents of the limits specified in Conditions D.1.3 (Sulfur Dioxide (SO<sub>2</sub>)) using a thirty (30) day rolling weighted average.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7, coal sampling and analysis data shall be collected as follows:
  - (1) Coal sampling shall be performed using the methods specified in 326 IAC 3-7-2(a), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e); or

- (2) Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

**D.1.10 Nitrogen Oxides Monitoring Requirement [326 IAC 10-4-4(b)(1)] [326 IAC 10-4-12(b) and (c)] [40 CFR 75]**

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The Permittee shall record, report, and quality assure the data from the monitoring systems for the NO<sub>x</sub> budget units in accordance with 326 IAC 10-4-12 and 40 CFR 75.

**D.1.11 Cleaning Waste Characterization [326 IAC 2-1.1-5(a)(4)] [40 CFR 261]**

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The Permittee shall use appropriate methodology as identified in 40 CFR Part 261 to characterize all boiler chemical cleaning wastes that will be evaporated, to determine compliance with the Operation Standards condition in this D section.

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

**D.1.12 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- 
- (a) The ability of the ESP to control particulate emissions shall be monitored once per shift, 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

**D.1.13 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- 
- (a) Appropriate response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below twenty-five percent (25%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.
  - (b) Opacity readings in excess of twenty-five percent (25%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

**D.1.14 SO<sub>2</sub> Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

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Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO<sub>2</sub> emissions:

- (a) Fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.
- (b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and analysis, then whenever the SO<sub>2</sub> continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO<sub>2</sub> emissions:
  - (1) If the CEM system is down for less than eight (8) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
  - (2) If the CEM system is down for eight (8) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b), except that all samples shall be collected after the bunker. Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

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

#### **D.1.15 Record Keeping Requirements**

- (a) To document compliance with Section C - Opacity and Conditions D.1.1, D.1.2, D.1.8, and D.1.12, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.1.1 and D.1.2.
  - (1) Data and results from the most recent stack test.
  - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.
  - (3) The results of all visible emission (VE) notations and Method 9 visible emission readings taken during any periods of COM downtime.
  - (4) All ESP parametric monitoring readings.
- (b) To document compliance with Conditions D.1.3, D.1.9 and D.1.14, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO<sub>2</sub> limits as required in Conditions D.1.3 and D.1.9. The Permittee shall maintain records in accordance with (2) and (3) below during SO<sub>2</sub> CEM system downtime if a backup CEM is not used.
  - (1) Whenever using CEMS data to demonstrate compliance with Condition D.1.3, the Permittee shall maintain all SO<sub>2</sub> continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEMS downtime;

- (2) Whenever the Permittee is not using CEMS data to demonstrate compliance with Condition D.1.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.
- (3) Whenever the Permittee is not using CEMS data to demonstrate compliance with Condition D.1.3, the Permittee shall maintain actual fuel usage since last compliance determination period.
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records of the results of all boiler and emission control equipment inspections, including any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.16 Reporting Requirements

- (a) A quarterly report of opacity exceedances shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. [326 IAC 7-2-1(c)(1)]

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

- (c) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
  - (1) Date of downtime.
  - (2) Time of commencement.
  - (3) Duration of each downtime.
  - (4) Reasons for each downtime.
  - (5) Nature of system repairs and adjustments.

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

## SECTION D.2

## FACILITY OPERATION CONDITIONS

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

One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, installed in 1968, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 2. Stack 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 4 2 was configured with a low NO<sub>x</sub> burner in 1993.

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

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

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(c), the PM emissions from the Boiler No. 2 stack shall not exceed 0.227 pound per million Btu heat input (lbs/MMBtu). This limitation was calculated using the following equation:

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

Where C = 50 μ/m<sup>3</sup>  
Q = 9,604 MMBtu/hr (capacity of Boilers 1-2)  
N = 2 (number of stacks)  
a = 0.8  
h = 500 Feet (average stack height)

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

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

- (1) For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when building a new fire in Boiler No. 2, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed two (2) hours (20 six minute-averaged periods) or until the flue gas temperature entering the electrostatic precipitator (ESP) reaches 250 degrees Fahrenheit, whichever occurs first. For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when building a new fire in Boiler No. 2, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed three (3) hours (30 six minute-averaged periods) or until the flue gas temperature entering the electrostatic precipitator (ESP) reaches 250 degrees Fahrenheit, whichever occurs first.
- (2) For the first three (3) years following the issuance date of the Part 70 operating permit for this source, when shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed three (3) hours (30 six minute-averaged periods) or until the flue gas temperature entering the electrostatic precipitator (ESP) has dropped below 250 degrees Fahrenheit, whichever occurs first.
- (3) Following the expiration of the alternative limitations in (a)(1) and (a)(2) of this condition, when building a new fire in a boiler, or shutting down a boiler, opacity may exceed the 40% opacity limit established in 326 IAC 5-1-2; however, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.

(4) Operation of the electrostatic precipitator is 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 periods 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.

D.2.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4-8]

Pursuant to 326 IAC 7-4-8 (Vermillion County Sulfur Dioxide Emission Limitations), the SO<sub>2</sub> emissions from Boiler No. 2 shall not exceed 4.40 pounds per million Btu (lbs/MMBtu), demonstrated using a thirty (30) day rolling average. This limitation will ensure that SO<sub>2</sub> emissions do not exceed the amount assumed in the modeling analysis performed for the Vermillion County SO<sub>2</sub> SIP limits.

D.2.4 Operation Standards [326 IAC 2-1.1-5(a)(4)] [40 CFR 261] [40 CFR 279] [329 IAC 13]

- (a) All coal burned, including coal treated with any additive, shall meet the ASTM definition of coal.
- (b) The burning of hazardous waste, as defined by 40 CFR 261, is prohibited in this facility. Any boiler tube chemical cleaning waste liquids, binding agent, or used oil combusted shall meet the toxicity characteristic requirements for non-hazardous waste.
- (c) Any boiler or condenser tube chemical cleaning waste liquids fired in the boiler shall only contain the cleaning solution and two full volume boiler rinses.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

- (a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its emission control devices.
- (b) The PMP for an electrostatic precipitator shall include the following inspections, performed according to the indicated schedules:
- (1) Plate and electrode alignment, every major maintenance outage, but no less than every 2 years;
- (2) ESP TR set components, performed whenever there is an outage of any nature lasting more than three days, unless such inspections have been performed within the last six months. At a minimum, the following inspections shall be performed:
- (A) Internal inspection of shell for corrosion (including but not limited to doors, hatches, insulator housings, and roof area).
- (B) Effectiveness of rapping (including but not limited to buildup of dust on discharge electrodes and plates).
- (C) Gas distribution (including but not limited to buildup of dust on distribution plates and turning vanes).
- (D) Dust accumulation (including but not limited to buildup of dust on shell and support members that could result in grounds or promote advanced corrosion).
- (E) Major misalignment of plates (including but not limited to a visual check of plate alignment).

- (F) Rapper, vibrator and TR set control cabinets (including but not limited to motors and lubrication).
  - (G) Rapper assembly (including but not limited to loose bolts, ground wires, water in air lines, and solenoids).
  - (H) Vibrator and rapper seals (including but not limited to air in-leakage, wear, and deterioration).
  - (I) TR set controllers (including but not limited to low voltage trip point, over current trip point, and spark rate).
  - (J) Vibrator air pressure settings.
- (3) Air and water infiltration, once per month. The recommended method for this inspection is for audible checks around ash hoppers/hatches, duct expansion joints, and areas of corrosion.

### Compliance Determination Requirements

#### D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

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Within the two (2) calendar years following the most recent stack test, compliance with the PM limitation in Condition D.2.1 shall be determined by a performance stack test conducted 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.2.7 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]

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

#### D.2.8 Continuous Emissions Monitoring [326 IAC 3-5]

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

#### D.2.9 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(A)] [326 IAC 2-7-6]

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- (a) Pursuant to 326 IAC 7-2-1(c), the Permittee shall demonstrate that the sulfur dioxide emissions from Unit 2 do not exceed the equivalents of the limits specified in Conditions D.2.3 (Sulfur Dioxide (SO<sub>2</sub>)) using a thirty (30) day rolling weighted average.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7, coal sampling and analysis data shall be collected as follows:
  - (1) Coal sampling shall be performed using the methods specified in 326 IAC 3-7-2(a), and sample preparation and analysis shall be performed as specified in 326 IAC 3-7-2(c), (d), and (e); or
  - (2) Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.
- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means

for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

**D.2.10 Nitrogen Oxides Monitoring Requirement [326 IAC 10-4-4(b)(1)] [326 IAC 10-4-12(b) and (c)] [40 CFR 75]**

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The Permittee shall record, report, and quality assure the data from the monitoring systems for the NO<sub>x</sub> budget units in accordance with 326 IAC 10-4-12 and 40 CFR 75.

**D.2.11 Cleaning Waste Characterization [326 IAC 2-1.1-5(a)(4)] [40 CFR 261]**

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The Permittee shall use appropriate methodology as identified in 40 CFR Part 261 to characterize all boiler chemical cleaning wastes that will be evaporated, to determine compliance with the Operation Standards condition in this D section.

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

**D.2.12 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- (a) The ability of the ESP to control particulate emissions shall be monitored once per shift, 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the percentage of T-R sets in service falls below ninety percent (90%). T-R set failure resulting in less than ninety percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

**D.2.13 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- (a) Appropriate response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the opacity exceeds twenty-five percent (25%) for three (3) consecutive six (6) minute averaging periods. In the event of opacity exceeding twenty-five percent (25%), response steps will be taken such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below twenty-five percent (25%). Examples of expected response steps include, but are not limited to, boiler loads being reduced and ESP T-R sets being returned to service.
- (b) Opacity readings in excess of twenty-five percent (25%) but not exceeding the opacity limit for the unit are not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

**D.2.14 SO<sub>2</sub> Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

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Whenever the automatic coal sampling system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO<sub>2</sub> emissions:

- (a) Fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.
- (b) If during the life of this permit the Permittee notifies the IDEM that, pursuant to 326 IAC 7-2-1(g), continuous emission monitoring data will be used instead of fuel sampling and

analysis, then whenever the SO<sub>2</sub> continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO<sub>2</sub> emissions:

- (1) If the CEM system is down for less than eight (8) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
- (2) If the CEM system is down for eight (8) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b), except that all samples shall be collected after the bunker. Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

### **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.2.1, D.2.2, D.2.8, and D.2.12, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.1 and D.2.2.
  - (1) Data and results from the most recent stack test.
  - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.
  - (3) The results of all visible emission (VE) notations and Method 9 visible emission readings taken during any periods of COM downtime.
  - (4) All ESP parametric monitoring readings.
- (b) To document compliance with Conditions D.2.3, D.2.9 and D.2.14, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO<sub>2</sub> limits as required in Conditions D.2.3 and D.2.9. The Permittee shall maintain records in accordance with (2) and (3) below during SO<sub>2</sub> CEM system downtime if a backup CEM is not used.
  - (1) Whenever using CEMS data to demonstrate compliance with Condition D.2.3, the Permittee shall maintain all SO<sub>2</sub> continuous emissions monitoring data, pursuant to 326 IAC 7-2-1(g), with calendar dates and beginning and ending times of any CEM downtime; and
  - (2) Whenever the Permittee is not using CEMS data to demonstrate compliance with Condition D.2.3, the Permittee shall maintain all fuel sampling and analysis data, pursuant to 326 IAC 7-2.
  - (3) Whenever the Permittee is not using CEMS data to demonstrate compliance with Condition D.2.3, the Permittee shall maintain actual fuel usage since last compliance determination period.

- (c) To document compliance with Condition D.2.5, the Permittee shall maintain records of the results of all boiler and emission control equipment inspections, including any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.16 Reporting Requirements

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- (a) A quarterly report of opacity exceedances shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A quarterly report of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per million Btus, and records of the daily average coal sulfur content, coal heat content, weighing factor, and daily average sulfur dioxide emission rate in pounds per million Btus shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. [326 IAC 7-2-1(c)(1)]

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

- (c) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
  - (1) Date of downtime.
  - (2) Time of commencement.
  - (3) Duration of each downtime.
  - (4) Reasons for each downtime.
  - (5) Nature of system repairs and adjustments.

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

### SECTION D.3

### FACILITY OPERATION CONDITIONS

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

One (1) natural gas and no. 2 fuel oil-fired combustion turbine, identified as Unit No. 4, installed in 1992, with a nominal heat input capacity of 1,297 million Btu per hour (MMBtu/hr), with hybrid burners to control NO<sub>x</sub> while burning natural gas and water injection for control of nitrogen oxides while combusting fuel oil, and exhausting to stack 4.

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

##### D.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 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 the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart GG.

##### D.3.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart GG]

Pursuant to 40 CFR 60, Subpart GG (Stationary Gas Turbines), emissions from the combustion turbine shall be limited as follows:

- (a) Nitrogen oxides (NO<sub>x</sub>) emissions, as required by 40 CFR 60.332, shall not exceed:

$$\text{STD} = 0.0075 \frac{(14.4)}{Y} + F,$$

where STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) NO<sub>x</sub> emission concentration (percent by volume at 15 percent oxygen on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of 40 CFR 60.332.

The limitations established by the above equation equal a NO<sub>x</sub> emission limitation of 91.5 ppm<sub>dv</sub> @ 15% oxygen while burning natural gas, and 92.8 ppm<sub>dv</sub> @ 15% oxygen while burning fuel oil.

Pursuant to 40 CFR 60.334(b), the Permittee shall install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> monitors. CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3). Water injection shall be used to control NO<sub>x</sub> emissions to the level required by the equation stated above when combusting fuel oil. The water injection system shall be operating as needed to control NO<sub>x</sub> whenever the turbines are in operation and combusting fuel oil, except during the 14 minute start-up and 14 minute shutdown periods.

- (b) Sulfur dioxide (SO<sub>2</sub>) emissions, as required by 40 CFR 60.333, shall not exceed 0.015 percent by volume at 15 percent oxygen on a dry basis, or the Permittee shall only use fuel with a sulfur content less than or equal to 0.8 percent by weight;

##### D.3.3 Prevention of Significant Deterioration (PSD) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD requirements) and Construction Permit No. 165-2113-00001, issued on June 25, 1992, the emissions in the exhaust from the turbine shall not exceed any of the following limits:

- (a) While burning natural gas:
  - (1) 25 ppmvd NO<sub>x</sub> at 15 percent oxygen
  - (2) 0.8 percent sulfur content by weight in the fuel
- (b) While burning natural gas at 100% load and 49 degrees F ambient temperature:
  - (1) 0.0056 pounds VOC per million Btu heat input;
  - (2) 0.0209 pounds CO per million Btu heat input;
- (c) While burning fuel oil:
  - (1) 42 ppmvd NO<sub>x</sub> at 15 percent oxygen
  - (2) 0.05 percent sulfur content by weight in the fuel
- (d) While burning fuel oil at 100% load and 26 degrees F ambient temperature:
  - (1) 0.0071 pounds VOC per million Btu heat input; and
  - (2) 0.0211 pounds CO per million Btu heat input.
- (e) Fuel usage limits:
  - (1) 2,803 million cubic feet per month of natural gas;
  - (2) 15.94 million gallons per month of fuel oil; and
  - (3) For every 1000 gallons of fuel oil used, natural gas limits are lowered by 0.176 million cubic feet.
- (f) The limits on NO<sub>x</sub> emissions apply at all times except during the 14 minute start-up and 14 minute shutdown periods.

**D.3.4 Opacity Limitations [326 IAC 2-2-3]**  
Pursuant to 326 IAC 2-2-3 (PSD requirements) and Construction Permit No. 165-2113-00001, issued on June 25, 1992, the exhaust from the turbine shall not exceed twenty percent (20%) opacity as determined by EPA Method 9, except during the 14 minute start-up and 14 minute shutdown periods.

**D.3.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1]**  
Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO<sub>2</sub> emissions from the turbine shall not exceed five-tenths (0.5) pound per million Btu (lbs/MMBtu).

**D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**  
A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

### **Compliance Determination Requirements**

**D.3.7 Continuous Monitoring System [326 IAC 12] [40 CFR 60, Subpart GG]**  
Pursuant to 40 CFR 60.334(b), the Permittee shall install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> monitors. The CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3).

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

#### **D.3.8 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- (a) Visible emission (VE) notations of the turbine stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) If abnormal emissions are observed at any boiler exhaust, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (c) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for the turbine.

#### **D.3.9 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR 60, Subpart GG]**

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- (a) Pursuant to 40 CFR 60.334(h) and (i), the Permittee:
  - (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of 40 CFR 60.334. The sulfur content of the fuel must be determined using total sulfur methods described in Sec. 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see Sec. 60.17), which measure the major sulfur compounds may be used; and
  - (2) Notwithstanding the provisions of paragraph (h)(1) of 40 CFR 60.334, the Permittee is not required to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by IDEM, OAQ for subpart GG requires such monitoring. The Permittee shall use one of the sources of information described in 40 CFR 60.334(h)(3)(i) and (ii).
  - (3) Pursuant to 40 CFR Part 60.334(h)(2), the Permittee is not required to monitor the nitrogen content of the fuel combusted in the turbine if the Permittee does not claim any allowance for fuel bound nitrogen.
  - (4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the Permittee may, without submitting a special petition to IDEM, OAQ, continue monitoring on this schedule.
- (b) The frequency of determining the sulfur content of the fuel shall be as follows:

- (1) Fuel oil: For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.
- (2) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) of 40 CFR 60.334, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of 40 CFR 60.334, custom schedules shall be substantiated with data and shall be approved by IDEM, OAQ before they can be used to comply with the standard in Sec. 60.333.
- (c) Pursuant to the June 21, 1995 approval letter from Felicia George, Assistant Commissioner, Office of Air Management, the Natural gas combusted may be monitored through the analysis of pipeline gas from the natural gas supplier. Gas samples shall be taken once per calendar quarter at the closest proximity to the site of the turbines. In the event of less than 30 days of turbine operation in a quarter, the quarterly sampling is waived. For these purposes, one day of operation shall be defined as any day that gas is burned for more than one (1) hour.
- (d) Analysis of the natural gas and fuel oil shall be performed using methodologies approved in 40 CFR 60, 40 CFR 75, or other methods approved by the EPA.

The sulfur content information obtained from this monitoring shall be used to document compliance with the limits stated in Conditions D.3.2, D.3.3 and D.3.5.

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

#### **D.3.10 Record Keeping Requirements**

- (a) To document compliance with Section C - Opacity and Conditions D.3.1, D.3.2, D.3.3, D.3.4, D.3.5, and D.3.7, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (3) shall be taken according to Condition D.3.7 and shall be complete and sufficient to establish compliance with the sulfur content limits established in Condition D.3.2.
  - (1) Data and results from the most recent stack test;
  - (2) All continuous emissions monitoring data;
  - (3) All fuel nitrogen content and sulfur content monitoring data (when claiming zero allowance for fuel bound nitrogen, or if the fuel combusted in the turbine qualifies as natural gas, the Permittee shall indicate it as such on the records); and
  - (4) All fuel oil and natural gas usage data used to show compliance with Condition D.3.3.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.3.11 Reporting Requirements**

The Permittee shall submit a quarterly summary of the following:

- (a) Pursuant to Construction Permit No. 165-2113-00001, issued on June 25, 1992, The Permittee shall submit a quarterly summary of the following:
  - (1) The date and times of operation of the turbine.
  - (2) The fuel type used during all periods of turbine operation.
  - (3) The sulfur content of the fuel oil.
  - (4) For each calendar month, the total combined natural gas and No. 2 fuel oil usage for the month and for the last 12 month period.
  - (5) Additional information required by 40 CFR 60.334, including the following:
    - (A) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with Sec. 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Sec. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
      - (1) Nitrogen oxides.
        - (i) For turbines using NO<sub>x</sub> and diluent CEMS:
          - (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds the applicable emission limit in Sec. 60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO<sub>x</sub> concentration" is the arithmetic average of the average NO<sub>x</sub> concentration measured by the CEMS for a given hour (corrected to 15 percent O<sub>2</sub> and, if required under Sec. 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO<sub>x</sub> concentrations immediately preceding that unit operating hour.
          - (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO<sub>x</sub> concentration or diluent (or both).
          - (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the Permittee has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. The Permittee does not have to report ambient conditions if the Permittee opts to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if the Permittee is not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).

If the Permittee is required to monitor the sulfur content of the fuel under paragraph (h) of 40 CFR 60.334:

- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) For the option to sample each delivery of fuel oil, the Permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The Permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of 40 CFR 60.334. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.
- (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

(B) For sulfur dioxides:

- (1) Any daily period during which the sulfur content of the natural gas fuel being fired in the gas turbine exceeds 0.8 percent by weight.
- (2) Any daily period during which the sulfur content of the fuel oil being fired in the gas turbine exceeds 0.05 percent by weight.
- (3) All fuel sampling and analysis data.
- (4) Actual fuel usage since last compliance determination period.

(C) For ice fog and emergency fuel as required by 40 CFR 60.334(c)(3) and (4).

(D) For each calendar month, the total combined natural gas and No. 2 fuel oil usage for the month and for the last 12 consecutive month period.

(b) The summaries shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. [326 IAC 7-2-1(c)(2)]

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

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

- (1) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3A, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3A.
- (2) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3B, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3B.
- (3) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3C, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3C.
- (4) One (1) no. 2 fuel oil-fired generator, identified as Unit No. 3D, installed in 1972, with a nominal heat input capacity of 30 million Btu per hour (MMBtu/hr), exhausting to stack 3D.

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

##### **D.4.1 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]**

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from each generator shall not exceed five-tenths (0.5) pound per million Btu heat input.

##### **D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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

#### **Compliance Determination Requirements**

##### **D.4.3 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]**

- (a) Pursuant to 326 IAC 7-2-1(c)(3), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the equivalent of 0.5 pounds per MMBtu, using a calendar month average.
- (b) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7-4, fuel sampling and analysis data shall be collected as follows:
  - (1) The Permittee may rely upon vendor analysis of fuel delivered, if accompanied by a vendor certification [326 IAC 3-7-4(b)]; or,
  - (2) The Permittee shall perform sampling and analysis of fuel oil samples in accordance with 326 IAC 3-7-4(a).
    - (A) Oil samples shall be collected from the tanker truck load prior to transferring fuel to the storage tank; or
    - (B) Oil samples shall be collected from the storage tank immediately after each addition of fuel to the tank.
    - (C) As an alternate to (A) and (B) above, samples may be collected prior to combustion (as burned) on each day fuel is combusted.

- (c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

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

##### **D.4.4 Visible Emissions Notations**

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- (a) Visible emission (VE) notations of the generators' stack exhausts shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) If abnormal emissions are observed at any generators' exhaust, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (c) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for the generators.

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

##### **D.4.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.4.1, the Permittee shall maintain records in accordance with (1) through (6) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications, or the records of fuel sampling and analysis, represent all of the fuel combusted during the period; and

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

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

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all

- calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
- (b) To document compliance with Condition D.4.4, the Permittee shall maintain records of visible emission notations of the generators' stack exhausts.
  - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.4.6 Reporting Requirements

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A summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements upon request.

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

## SECTION D.5 FACILITY CONDITIONS

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

- (a) A dual conveyor coal processing system, with a nominal throughput of 1900 tons of coal per hour (950 tons of coal per hour each side), consisting of the following equipment:
- (1) One (1) railcar unloading station, with a drop point to two (2) hoppers identified as DP-1, with the drop point enclosed with emissions uncontrolled, and exhausting to the ambient air.
  - (2) One (1) storage area, having a nominal storage capacity including the active piles of 982,800 tons, with fugitive emissions controlled as needed by a watering truck.
  - (3) One (1) enclosed hopper, with a drop point to a conveyor identified as DP-2, with the drop point enclosed with emissions controlled by a water spray dust suppression system as needed, and exhausting to the ambient air.
  - (4) One (1) enclosed hopper and two (2) reclaim feeders, with an underground drop points identified as DP-11 and DP-12, with emissions controlled by the underground enclosure, and routed to the conveyor system.
  - (5) An enclosed dual conveyor system, with 6 drop points identified as DP-3 through DP-6, DP-8, and DP-13, with each drop point enclosed with emissions controlled by the enclosure. Drop points DP-3 through DP-5, DP-8, and DP-13 are controlled as needed by a water spray dust suppression system, and DP-6 is controlled by rotoclones.
  - (6) An enclosed conveyor system with drop point identified as DP-9, controlled by a telescoping chute.
  - (7) Coal bunker and coal scale exhausts and associated dust collector vents.

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

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the coal processing drop points, coal scale exhausts, and coal bunkers shall not exceed 86.19 pounds per hour when operating at a process weight rate of 1900 tons per hour. This is determined by the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = 950 \text{ (process weight rate in tons per hour)}$$

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

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

## **Compliance Determination Requirements**

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

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Except as otherwise provided by statute or rule or in this permit, in order to comply with Section C - Opacity and Condition D.5.1, the dust collectors shall be in operation at all times the coal bunker and coal scales are in operation.

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

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

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- (a) Visible emission notations of the coal unloading station, coal bunker, coal scale exhausts and associated dust collector vents exhausts shall be performed once per shift during normal daylight operations when transferring coal. A trained employee shall record whether emissions are normal or abnormal.
  - (b) If abnormal emissions are observed from the coal unloading station, coal bunker, coal scale exhausts and associated dust collector vents exhausts, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of 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.5.5 Record Keeping Requirements**

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- (a) To document compliance with Section C - Opacity, Section C -Fugitive Dust Emissions, and Condition D.5.4, the Permittee shall maintain records of the visible emission notations of the coal unloading station, coal bunker, coal scale exhausts and associated dust collector vents exhausts.
  - (b) To document compliance with Condition D.5.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
  - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.6 FACILITY OPERATION CONDITIONS

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

The following insignificant activities:

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (2) One (1) fuel oil storage tank, identified as T-1, installed in 1992, with a capacity of 395,000 gallons, used to store fuel oil for the combustion turbine, and exhausting through vent T-1.
- (3) One (1) fuel oil-fired auxiliary boiler, identified as Aux-1, constructed before 1968, with a heat input capacity of 0.05 million Btu per hour, and exhausting to general ventilation.

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

#### D.6.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the 0.05 MMBtu per hour heat input boiler shall be limited to 0.20 pounds per MMBtu heat input.

This limitation is based on the following equation:

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

Where C = 50  $\mu/m^3$   
Q = 9,604.05 MMBtu/hr (capacity of Boilers 1, 2, Aux.1)  
N = 3 (number of stacks)  
a = 0.8  
h = 495.6 Feet (average stack height)

#### D.6.2 Organic Solvent Degreasing Operations: Cold Cleaner Operation [326 IAC 8-3-2]

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

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.6.3 Organic Solvent Degreasing Operations: Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]

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

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

### **Compliance Determination Requirement**

#### **D.6.4 Cleaning Waste Characterization [326 IAC 2-1.1-5(a)(4)] [40 CFR 261]**

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The Permittee shall use appropriate methodology as identified in 40 CFR Part 261 to characterize all boiler chemical cleaning wastes that will be evaporated, to determine compliance with the Operation Standards condition in this D section.

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

#### **D.6.5 Record Keeping Requirements**

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- (a) To document compliance with 40 CFR 60, Subpart Kb (Volatile Organic Liquid Storage Tanks), the Permittee shall maintain records of the dimension and capacity of the storage tank for the life of the source as required by 40 CFR 60.116b.
  
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION E TITLE IV ACID RAIN PROGRAM CONDITIONS

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

- (a) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 1, installed in 1967, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 1. Stack 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 1 was configured with a low NO<sub>x</sub> burner in 1993.
- (b) One (1) dry bottom, pulverized coal-fired boiler, identified as Boiler No. 2, installed in 1968, with a nominal heat input capacity of 4,802 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, and exhausting to stack 2. Stack 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitor (COM). Boiler No. 2 was configured with a low NO<sub>x</sub> burner in 1993.

### Acid Rain Program

E.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]  
Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix A, and is incorporated by reference.

E.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]  
Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

- (a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.
- (b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.
- (c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: PSI Energy, Inc. - Cayuga Generating Station  
Source Address: State Road 63, Cayuga, Indiana 47928  
Mailing Address: c/o Steven Pearl, 1000 East Main Street, Plainfield, IN 46168  
Part 70 Permit No.: T165-7174-00001

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

Please check what document is being certified:

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

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Telephone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: PSI Energy, Inc. - Cayuga Generating Station  
Source Address: State Road 63, Cayuga, Indiana 47928  
Mailing Address: c/o Steven Pearl, 1000 East Main Street, Plainfield, IN 46168  
Part 70 Permit No.: T165-7174-00001

**This form consists of 2 pages**

**Page 1 of 2**

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.</li></ul>
--

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

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

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

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

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

**Part 70 Quarterly Report  
Unit No. 4 Monthly Fuel Usage**

Source Name: PSI Energy, Inc. - Cayuga Generating Station  
Source Address: State Road 63, Cayuga, Indiana 47928  
Mailing Address: c/o Steven Pearl, 1000 East Main Street, Plainfield, IN 46168  
Part 70 Permit No.: T165-7174-00001  
Facility: Unit No. 4 Combustion Turbine  
Parameter: Fuel Usage Limit  
Limit: 2,803 MMCF/month of natural gas, 15.94 MMGal/month of fuel oil  
For every 1000 gallons of fuel oil used, natural gas limits are lowered by 0.176 million cubic feet.

YEAR:

Month	Fuel Oil Usage	Natural Gas Fuel Usage

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

Submitted by:

Title / Position:

Signature:

Date:

Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Office of Air Quality  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: PSI Energy, Inc. - Cayuga Generating Station  
Source Address: State Road 63, Cayuga, Indiana 47928  
Mailing Address: c/o Steven Pearl, 1000 East Main Street, Plainfield, IN 46168  
Part 70 Permit No.: T165-7174-00001

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

<p>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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	

<b>Response Steps Taken:</b>
------------------------------

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

Form Completed By:  
Title/Position:  
Date:

Phone:

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Significant Permit Modification to a Part 70 Operating Permit

<b>Source Name:</b>	PSI Energy, Inc. - Cayuga Generating Station
<b>Source Location:</b>	State Road 63, Cayuga, Indiana 47928
<b>County:</b>	Vermillion
<b>SIC Code:</b>	4911
<b>Operation Permit No.:</b>	T165-7174-00001
<b>Operation Permit Issuance Date:</b>	September 14, 2004
<b>Permit Modification No.:</b>	165-19845-00001
<b>Permit Reviewer:</b>	AY/EVP

On March 4, 2005, the Office of Air Quality (OAQ) had a notice published in the Daily Clintonian in Plainfield, Indiana, stating that PSI Energy, Inc. – Cayuga Generating Station had applied for a Part 70 permit modification application requesting to revise the 40 CFR, Subpart GG language. The notice also stated that OAQ proposed to issue a permit modification and provided information on how the public could review the proposed Part 70 permit modification 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 modification should be issued as proposed.

On March 28, 2005, Steven L. Pearl, of PSI Energy, Inc. submitted comments on the proposed Part 70 permit modification. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted):

#### **Comment 1**

On November 9, 2004, PSI Energy, Inc. petitioned for the draft changes as a Permit Administrative Amendment. IDEM subsequently determined that the permit revisions did not qualify as an Administrative Amendment, but required a Significant Permit Modification. PSI continues to believe that these revisions qualify as an Administrative Amendment. In support and explanation of this position, I have attached a February 1, 2005 letter to Paul Dubenetzky, Permits Branch Chief, from Madonna McGrath, Counsel for PSI Energy, Inc., which explains the basis for our position.

#### Background

On July 8, 2004, U.S. EPA published in the Federal Register (69 Fed. Reg. 41346) amendments to several sections of the NSPS for gas turbines in 40 CFR Part 60, Subpart GG. (See Attachment A.) U.S. EPA recognized in the preamble to the final rule that there have been many advances in the design of emission controls and test methodologies since the NSPS for gas turbines were first published in 1979. The agency stated that the purpose of the 2004 amendments was ". . . to codify the alternatives [to resting and monitoring procedures] that have been routinely approved" by the agency and to harmonize these standards with 40 CFR Part 75. 69 Fed. Reg. 41347. The following PSI generating stations are subject to 40 CFR Part 60, Subpart GG: Henry County, Title V permit T065-15440-00032, issued January 7, 2004; Noblesville, Title V permit T057- 7173-00004. issued April 13, 2004; Wabash River Repowering, Title V permit T161-7176-00021, issued September 2, 2004; and Cayuga, Title V permit T165-7174-00001, issued September 14, 2004.

## Issue

On November 9 and 11, 2004, respectively, PSI wrote to IDEM requesting an administrative amendment to the Title V permits noted above to incorporate the July 2004 amendments to Subpart GG into those permits. (See Attachment B, copies of PSI Administrative Amendment Requests.) Since that time nearly three months have elapsed and IDEM and its contractors have responded to PSI that incorporation of these amendments can not be processed as an Administrative Amendment nor as a minor permit modification; instead, each revision must be processed as a Significant Permit Modification. (See Attachment C, letter to S. Pearl from R. Hannon. dated 1/24/05. Note: IDEM contractors either verbally or by email have denied the Administrative Amendment request for substantially the same reasons as set forth in the 1/24/05 R. Harmon letter.)

As the U.S. EPA makes clear in the preamble to the final Subpart GG amendments ". . . these amendments do not impose any new requirements, or require revision of existing permits, but simply provide several pre-approved options for sources that do not want to seek case by case approval." 69 Fed. Reg. 41346 at 41352. Moreover, U.S. EPA states that a secondary purpose of the amendments to Subpart GG is ". . . to harmonize, where appropriate, the provisions of Subpart GG with the monitoring provisions of 40 CFR Part 75, the continuous emission monitoring requirements of the acid rain program under Title IV of the Clean Air Act, since many existing and new gas turbines are subject to both regulations," EPA also recognizes the burden of both GG requirements and 40 CFR Part 75 requirements and states since "we are allowing the use of CEMS units that are certified according to the requirements of 40 CFR Part 75 . . . therefore it is appropriate to allow the use of 40 CFR Part 75 CEMS data for Subpart GG compliance demonstration." Id. at 41348.

326 IAC 2-7-11, the Administrative Permit Amendment Rule, provides in paragraph (a)(3) that an Administrative Permit Amendment can be used for more frequent monitoring or reporting by the permittee. Here, PSI is requesting to use the NOx CEMS as an alternative to monitoring other parameters. We believe that use of the CEMS for this purpose is "more" rather than less monitoring data and thus appropriate and consistent with the Administrative Amendment provisions of 326 IAC 2-7-11, especially in light of the U.S. EPA preamble statement that use of this option does not require a change in existing permits.

Setting aside for a moment the merits of incorporating the Subpart GG amendments in PSI's Title V permits via an Administrative Amendment, PSI also objects to the determination that incorporation of the Subpart GG amendments can not be processed as a minor permit modification because IDEM considers this a "modification" under Title I of the Clean Air Act which is prohibited by Indiana Rule 326 IAC 2-7-12(b)(1)(E).

326 IAC 2-7-12(b) states as follows:

- (1) minor permit modification procedures may be used only for those permit modifications that meet the following requirements:
  - ....
  - (E) are not modifications under any provision of Title 1 of the CAA...

It appears that IDEM believes that any permit modification request that relates to "any provision of Title I of the Clean Air Act" cannot be processed as a minor permit modification pursuant to the 326 IAC 2-7-12(b)(1)(E); However, this interpretation ignores the key term "modification" in the phrase "are not modifications under Title I of the Clean Air Act." (Emphasis added.)

42 U.S. Code §§ 7411(a)(4) and 7412(a)(S) (Title I of the Clean Air Act) define the term "modification" as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted." Therefore, any "modification" under any provision of Title I of the Clean Air Act must involve a physical change in or a change in the method of operation of a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted at source. (Emphasis added.) Nowhere in Title I of the Clean Air Act does it state that a permit modification to incorporate NSPS amendments for alternative monitoring and test methodologies is in any way a "modification" as defined in CAA §§ 111 (a)( 4) or 112(a)(S).

PSI requests to incorporate the Subpart GG amendments into its respective Title V permits will not involve any physical change or a change in the method of operation of the respective generating stations. The incorporation of the Subpart GG amendments into PSI's Title V permits will not increase the amount of any air pollutant emitted by any PSI generating station nor will such a permit modification result in the emission of any air pollutant not previously emitted. We believe that IDEM has erroneously confused the request for a modification to a permit with a "modification" as defined in Title I of the Clean Air Act. Since 326 IAC 2-7-12(b )(1)(E) is not applicable to PSI's request to include the amendments to 40 CFR Part 60, Subpart GG in its permits, we respectfully request that the Subpart GG amendments be incorporated into PSI's permits either as administrative amendments or as minor permit modifications as quickly as possible.

We reiterate that US EPA has said that these amendments do not require any revision to permits and can be implemented immediately. PSI has suffered and will continue to suffer harm from its inability to rely on the amended Subpart GG to verify its compliance with the substantive requirements.

### **Response 1**

As explained in the Technical Support document, this permit application was reviewed as a Significant Permit Modification pursuant to 326 IAC 2-7-12(d)(1) where a request does not qualify as a minor permit modification or administrative amendment, and is considered as a significant change to existing permit terms and conditions, including monitoring, record keeping and reporting.

This modification was not reviewed as an administrative amendment because it did not fit any criteria under 326 IAC 2-7-11. Pursuant to 326 IAC 2-7-11(a)(3), an administrative amendment can be issued where a modification involves more frequent monitoring or reporting by the permittee. Although the monitoring can be considered "more frequent" in terms of installing CEMS, OAQ does not consider the reporting and record keeping being "more frequent" due to this modification. Under the rule revision, pursuant to 40 CFR 60.334(h)(2) and (3), if the Permittee claims zero allowance for fuel bound nitrogen, sampling the fuel for nitrogen content is not required, and if the fuel qualifies as natural gas, sampling the fuel for sulfur content is not required. The record keeping requirement has been deleted and IDEM, OAQ considers this less frequent recordkeeping.

In addition, this permit application was not reviewed as a minor permit modification because it did not satisfy one of the criteria listed under 326 IAC 2-7-12(b)(1)(B), which states that minor permit modification can be done for applications that "do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit." IDEM, OAQ considers the changes in monitoring as "significant changes" where the NOx CEMs is being used in lieu of monitoring the fuel consumption and water-to-fuel ratio. Also, the changes in record keeping requirements are also considered "significant changes" as explained in the above paragraph.

Therefore, IDEM, OAQ believes that the most reasonable criteria to fit this permit application is in 326 IAC 2-7-11(d)(1) as explained in the first paragraph. There will be no changes to the permit as a result of this comment.

## Comment 2

Condition D.3.2(a): In the last paragraph of D.3.2(a), the current permit contains an exemption from the use of water injection while burning fuel oil, and thus the NO<sub>x</sub> limitation while burning fuel oil, for 14 minutes during unit startup and 14 minutes during unit shutdown. This exemption is still needed as it is not possible to utilize water injection during these periods. Except during these periods, water injection is still needed to control NO<sub>x</sub> while burning fuel oil. This requirement and exemption should only be affected by the draft permit changes to the extent it does not regulate the rate of water injection. Thus, the following language should be added back into Condition D.3.2(a): *“Water injection shall be used to control NO<sub>x</sub> emissions to the level required by the equation stated above when combusting fuel oil. The water injection system shall be operating ~~at the proper injection ratio, as determined by the initial compliance testing,~~ **as needed to control NO<sub>x</sub>** whenever the turbines are in operation and combusting fuel oil, except during the 14 minute start-up and 14 minute shutdown periods.”*

Condition D.3.2(a): In the last paragraph of D.3.2(a) in the new draft permit requires the use of a continuous emission monitoring system (CEMs) consisting of NO<sub>x</sub> and O<sub>2</sub> monitors. 40 CFR 60.334(b) specifically allows the alternative use of a CO<sub>2</sub> monitor rather than an O<sub>2</sub> monitor, and a CO<sub>2</sub> monitor is currently in use at Cayuga. This condition should be modified to read: *“...a continuous emission monitoring system (CEMs) consisting of NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> monitors...”*. Additionally, strike the word “install” from the new condition, these monitors are already installed.

## Response 2

Condition D.3.2 has been revised as requested.

### D.3.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart GG]

Pursuant to 40 CFR 60, Subpart GG (Stationary Gas Turbines), emissions from the combustion turbine shall be limited as follows:

- (a) Nitrogen oxides (NO<sub>x</sub>) emissions, as required by 40 CFR 60.332, shall not exceed:

$$\text{STD} = 0.0075 \frac{(14.4)}{Y} + F,$$

where STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) NO<sub>x</sub> emissions concentration (percent by volume at 15 percent oxygen on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of 40 CFR 60.332.

The limitations established by the above equation equal a NO<sub>x</sub> emission limitation of 91.5 ppm<sub>dv</sub> @ 15% oxygen while burning natural gas, and 92.8 ppm<sub>dv</sub> @ 15% oxygen while burning fuel oil.

Pursuant to 40 CFR 60.334(b), the Permittee shall install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> monitors. CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3). **Water injection shall be used to control NO<sub>x</sub> emissions to the level required by the equation stated above when combusting fuel oil. The water injection system shall be operating as needed to control NO<sub>x</sub> whenever the turbines are in operation and combusting fuel oil, except during the 14 minute start-up and 14 minute shutdown periods.**

### Comment 3

Condition D.3.7: As discussed above, 40 CFR 60.334(b) specifically allows the alternative use of a CO<sub>2</sub> monitor rather than an O<sub>2</sub> monitor, and a CO<sub>2</sub> monitor is currently in use at Cayuga. Modify D.3.7 to read: “...a continuous emission monitoring system (CEMs) consisting of NO<sub>x</sub> and O<sub>2</sub> **or CO<sub>2</sub>** monitors.”

### Response 3

#### D.3.7 Continuous Monitoring System [326 IAC 12] [40 CFR 60, Subpart GG]

Pursuant to 40 CFR 60.334(b), the Permittee shall install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> monitors. The CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3).

### Comment 4

Condition D.3.9: In accordance with the revised Subpart GG, 40 CFR 60.334(h)(2), an owner or operator is not required to monitor the nitrogen content of the fuel combusted if the owner or operator does not claim any allowance for fuel bound nitrogen. Accordingly, the following should be added to Condition D.3.9(a), “Pursuant to 40 CFR Part 60.334(h)(2), the Permittee is not required to monitor the nitrogen content of the fuel combusted in the turbine if the Permittee does not claim any allowance for fuel bound nitrogen.”

### Response 4

Condition D.3.9 has been revised as requested.

#### D.3.9 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR 60, Subpart GG]

(a) Pursuant to 40 CFR 60.334(h) and (i), the Permittee:

\*\*\*\*

- (3) **Pursuant to 40 CFR Part 60.334(h)(2), the Permittee is not required to monitor the nitrogen content of the fuel combusted in the turbine if the Permittee does not claim any allowance for fuel bound nitrogen.**
- (4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the Permittee may, without submitting a special petition to IDEM, OAQ, continue monitoring on this schedule.

### Comment 6

Condition D.3.9(c): Condition D.3.9(c) appears to continue to require the use of the custom fuel monitoring schedules. 40 CFR 60.334(h)(3) does not require sulfur sampling if the gaseous fuel meets the definition of natural gas, and 40 CFR 60.334(h)(2) does not require sampling for nitrogen if no credit is claimed for fuel bound nitrogen. However, 40 CFR 60.334(h)(4) does allow, but does not require, the continued use of a custom fuel monitoring plan. Therefore, this condition should be changed to read: “...the Natural gas combusted ~~shall~~ **may** be monitored through the analysis of pipeline gas...”.

### Response 6

Condition D.3.9(c) has been revised as requested.

#### D.3.9 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR 60, Subpart GG]

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\*\*\*\*

- (c) Pursuant to the June 21, 1995 approval letter from Felicia George, Assistant Commissioner, Office of Air Management, the Natural gas combusted ~~shall~~ **may** be monitored through the analysis of pipeline gas from the natural gas supplier. Gas samples shall be taken once per calendar quarter at the closest proximity to the site of the turbines. In the event of less than 30 days of turbine operation in a quarter, the quarterly sampling is waived. For these purposes, one day of operation shall be defined as any day that gas is burned for more than one (1) hour.

### Comment 7

Condition D.3.10(a): Clarify the Record keeping requirements in D.3.10(a)(3) by adding: “When claiming zero allowance for fuel bound nitrogen, or if the fuel combusted in the turbine qualifies as natural gas, the Permittee shall indicated as such on the records.”

### Response 7

Condition D.3.10 has been revised as requested.

#### D.3.10 Record Keeping Requirements

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- (a) To document compliance with Section C - Opacity and Conditions D.3.1, D.3.2, D.3.3, D.3.4, D.3.5, and D.3.7, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (3) shall be taken according to Condition D.3.7 and shall be complete and sufficient to establish compliance with the sulfur content limits established in Condition D.3.2.
- (1) Data and results from the most recent stack test;
  - (2) All continuous emissions monitoring data;
  - (3) All fuel nitrogen content and sulfur content monitoring data (**when claiming zero allowance for fuel bound nitrogen, or if the fuel combusted in the turbine qualifies as natural gas, the Permittee shall indicate it as such on the records**); and

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## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Significant Permit Modification

#### Source Background and Description

<b>Source Name:</b>	PSI Energy, Inc. - Cayuga Generating Station
<b>Source Location:</b>	State Road 63, Cayuga, Indiana 47928
<b>County:</b>	Vermillion
<b>SIC Code:</b>	4911
<b>Operation Permit No.:</b>	T165-7174-00001
<b>Operation Permit Issuance Date:</b>	September 14, 2004
<b>Permit Modification No.:</b>	165-19845-00001
<b>Permit Reviewer:</b>	AY/EVP

The Office of Air Quality (OAQ) has reviewed a modification application from PSI Energy, Inc. – Cayuga Generating Station, relating to the operation of a stationary electric power generating station.

#### History

On November 12, 2004, PSI Energy, Inc. submitted an application to the OAQ requesting a permit modification to revise the 40 CFR Subpart GG language. On July 8, 2004, the US EPA issued final rule revisions (effective the same date) to the New Source Performance Standards for Stationary Gas Turbines, 40 CFR Subpart GG (69 FR 41346). PSI Energy, Inc. – Cayuga Generating Station was issued Part 70 Operating Permit No. T165-7174-00001 on September 14, 2004.

#### Explanation of Modification

The permit modification will consist of the following:

- (a) Condition D.3.2(a) of the Part 70 permit requires the water injection system, controlling NO<sub>x</sub> emissions, to be monitored continuously. Under the rule revision, pursuant to 40 CFR 60.334(b), NO<sub>x</sub> CEMs may be used in lieu of monitoring the water injection rate. Condition D.3.2(a) is being revised to reflect this change.
- (b) Condition D.3.7 of the Part 70 permit requires a continuous monitoring system for the measurement of fuel consumption and the ratio of water to fuel being fired in the turbine. Under the rule revision, pursuant to 40 CFR 60.334(b), NO<sub>x</sub> CEMs may be used in lieu of monitoring the fuel consumption and water-to-fuel ratio, therefore, the continuous monitoring requirements for the measurement of fuel consumption and ratio of water to fuel would not apply. Condition D.3.7 is being revised to reflect this change.
- (c) Condition D.3.9(a) of the Part 70 permit provides only one option for sampling fuel from bulk storage in order to determine the sulfur and nitrogen content of the fuel. Under the rule revision, pursuant to 40 CFR 60.334(i)(1), the permittee is allowed up to four options for sampling fuel from bulk storage. Condition D.3.9(a) is being revised to reflect this change.

- (d) Conditions D.3.9(b) and D.3.10(a)(3) of the Part 70 permit requires the fuel values to be determined and recorded daily if the turbine is supplied its fuel without intermediate bulk storage. Under the rule revision, pursuant to 40 CFR 60.334(h)(2) and (3), if the Permittee claims zero allowance for fuel bound nitrogen, sampling the fuel for nitrogen content is not required, and if the fuel qualifies as natural gas, sampling the fuel for sulfur content is not required. Conditions D.3.9(b) and D.3.10(a)(3) are being revised to reflect this change.
- (e) Condition D.3.11(a)(6)(A)(1) of the Part 70 permit requires reporting of one hour periods during which the average water-to-fuel ratio falls below the water-to-fuel ratio determined to demonstrate compliance. Pursuant to 40 CFR 60.334(j)(1)(iii)(A), the revision to Subpart GG provides that if NOx CEMs are used, the quarterly summary will include any one hour period in which the 4-hour average exceeds the emission limitation. Condition D.3.11(a)(6)(A)(1) is being revised to reflect this change.
- (f) Condition D.3.13(a)(6)(A)(2) of the Part 70 permit requires reporting of any period during which the fuel bound nitrogen of fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Under the rule revision, pursuant to 40 CFR 60.334(h)(2), if the Permittee claims zero allowance for fuel bound nitrogen, reporting of the fuel bound nitrogen is not required. Condition D.3.13(a) is being revised to reflect this change.
- (g) The last paragraph of Condition D.3.11(a) of the Part 70 permit requires the quarterly summary report to contain the average water-to-fuel ratio, average fuel consumption, and the graphs or figures developed during initial performance testing. According to the revised rule, if NOx CEMs are used to demonstrate compliance, then the requirements to report the average water-to-fuel ratio, average fuel consumption, and the graphs or figures developed during the initial performance test do not apply. In addition, the revised rule, pursuant to 40 CFR 60.334(j)(1)(iii)(A) and (C), specifies that if the worst case ISO correction factor is being used or no ISO correction factor is being used, the quarterly summary required as required in Condition D.3.11(a) need not include the ambient conditions. All the above revisions are being incorporated in Condition D.3.11.

### **Existing Approvals**

The source was issued a Part 70 Operating Permit (T165-7174-00001) on September 14, 2004.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the Significant Permit Modification 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 November 12, 2004.

### **Emission Calculations**

The permit modification will not result in any new emissions.

### Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(d)(1) for a request that does not qualify as a minor permit modification or administrative amendment, and is considered as a significant change to existing permit terms and conditions, including monitoring, record keeping and reporting.

### County Attainment Status

The source is located in Vermillion County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when evaluating the rule applicability relating to ozone. Vermillion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Vermillion County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Federal Rule Applicability

There are no new federal or state rules applicable to this permit modification, as the changes presented herein do not involve construction of a new emissions unit, nor the modification or reconstruction of an existing emissions unit.

This permit modification involves a revision of 40 CFR 60 Subpart GG conditions in the original Part 70 permit, based on US EPA's final rule revisions, published in the Federal Register on July 8, 2004. The following section documents these changes.

### Changes to the Part 70 Permit Due to This Modification:

The following changes are made as the Significant Permit Modification to Part 70 No. T165-7174-00001. New language is shown in **bold** and deleted language is shown with a line through it for emphasis).

1. Under the rule revision, pursuant to 40 CFR 60.334(b) and IDEM's authorization of alternative monitoring requirements under 326 IAC 12-1(b), NOx CEMs may be used in lieu of monitoring the water injection rate. The Permittee has opted to use the CEMS instead of monitoring water-to-fuel ratio. Condition D.3.2(a) has been revised to reflect this change.

**D.3.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart GG]**

Pursuant to 40 CFR 60, Subpart GG (Stationary Gas Turbines), emissions from the combustion turbine shall be limited as follows:

- (a) Nitrogen oxides (NO<sub>x</sub>) emissions, as required by 40 CFR 60.332, shall not exceed:

$$\text{STD} = 0.0075 \frac{(14.4)}{Y} + F,$$

where STD = allowable **ISO corrected (if required as given in 40 CFR 60.335(b)(1))** NO<sub>x</sub> emissions **concentration** (percent by volume at 15 percent oxygen on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of 40 CFR 60.332.

The limitations established by the above equation equal a NO<sub>x</sub> emission limitation of 91.5 ppmdv @ 15% oxygen while burning natural gas, and 92.8 ppmdv @ 15% oxygen while burning fuel oil.

~~Water injection shall be used to control NO<sub>x</sub> emissions to the level required by equation stated above when combusting fuel oil. The water injection system shall be operating at the proper injection ratio, as determined by the initial compliance testing, whenever the turbines are in operation and combusting fuel oil, except during the 14 minute start up and 14 minute shutdown periods.~~ Pursuant to 40 CFR 60.334(b), the Permittee shall **install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> monitors. CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3).**

- (b) Sulfur dioxide (SO<sub>2</sub>) emissions, as required by 40 CFR 60.333, shall not exceed 0.015 percent by volume at 15 percent oxygen on a dry basis, or the Permittee shall only use fuel with a sulfur content less than or equal to 0.8 percent by weight;
2. Under the rule revision, pursuant to 40 CFR 60.334(b) and IDEM's authorization of alternative monitoring requirements under 326 IAC 12-1(b), NO<sub>x</sub> CEMs may be used in lieu of monitoring the fuel consumption and water-to-fuel ratio. The Permittee has opted to use the CEMS instead of monitoring water-to-fuel ratio. Condition D.3.7 has been revised to reflect this change.

**D.3.7 Continuous Monitoring System [326 IAC 12] [40 CFR 60, Subpart GG]**

~~Pursuant to 40 CFR 60, Subpart GG (Stationary Gas Turbines), a continuous monitoring system for the measurement of fuel consumption and the ratio of water to fuel being fired in the turbine, shall be calibrated, operated, and maintained.~~

Pursuant to 40 CFR 60.334(b), the Permittee shall **install, certify, maintain, operate, and quality assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> monitors. The CEMS shall be installed, certified, maintained and operated as specified in 40 CFR 60.334(b)(1) through (b)(3).**

3. Under the rule revision, pursuant to 40 CFR 60.334(i)(1) and IDEM's authorization of alternative monitoring requirements under 326 IAC 12-1(b), the Permittee is allowed up to four options for sampling fuel from bulk storage. Additionally, pursuant to 40 CFR 60.334(h)(2) and (3), if the Permittee claims zero allowance for fuel bound nitrogen, sampling the fuel for nitrogen content is not required, and if the fuel qualifies as natural gas, sampling the fuel for sulfur content is not required. The Permittee has elected not to monitor nitrogen content as the source is claiming zero allowance for fuel bound nitrogen. Condition D.3.9 has been revised to incorporate the above mentioned changes and the new language pertaining to sulfur and nitrogen content monitoring.

D.3.9 Sulfur Content and Nitrogen Content [326 IAC 12] [40 CFR 60, Subpart GG]

- ~~(a) Pursuant to 40 CFR 60.334(h) and (i), Subpart GG, the Permittee shall monitor the nitrogen and sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:~~
- ~~(a) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source. More frequent sampling on a daily as burned basis shall be deemed as equivalent and may be used in place of the tank sampling.~~
- ~~(b) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with the monitoring requirements.~~
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of 40 CFR 60.334. The sulfur content of the fuel must be determined using total sulfur methods described in Sec. 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see Sec. 60.17), which measure the major sulfur compounds may be used; and**
- (2) Notwithstanding the provisions of paragraph (h)(1) of 40 CFR 60.334, the Permittee is not required to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by IDEM, OAQ for subpart GG requires such monitoring. The Permittee shall use one of the sources of information described in 40 CFR 60.334(h)(3)(i) and (ii).**
- (3) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the Permittee may, without submitting a special petition to IDEM, OAQ, continue monitoring on this schedule.**

**(b) The frequency of determining the sulfur content of the fuel shall be as follows:**

- (1) Fuel oil: For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.**
- (2) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) of 40 CFR 60.334, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of 40 CFR 60.334, custom schedules shall be substantiated with data and shall be approved by IDEM, OAQ before they can be used to comply with the standard in Sec. 60.333.**

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4. Pursuant to 40 CFR 60.334(j)(1)(iii)(A), the revision to Subpart GG provides that if NO<sub>x</sub> CEMs are used, the quarterly summary will include any one hour period in which the 4-hour average exceeds the emission limitation. Also, if the Permittee claims zero allowance for fuel bound nitrogen, reporting of the fuel bound nitrogen is not required. Condition D.3.11(a)(6)(A)(1) and (2) are revised to reflect this change. In addition, the revised rule, pursuant to 40 CFR 60.334(j)(1)(iii)(A) and (C), specifies that if the worst case ISO correction factor is being used or no ISO correction factor is being used, the quarterly summary required in Condition D.3.11(a) need not include the ambient conditions. The Permittee has opted to claim zero allowance for fuel bound nitrogen and install CEMS instead of monitoring water to fuel ratio. Per IDEM's authorization of alternative monitoring requirements under 326 IAC 12-1(b), the following changes have been incorporated in Condition D.3.11

#### D.3.11 Reporting Requirements

The Permittee shall submit a quarterly summary of the following:

- (a) Pursuant to Construction Permit No. 165-2113-00001, issued on June 25, 1992, The Permittee shall submit a quarterly summary of the following:
  - (1) The date and times of operation of the turbine.
  - ~~(2) The maximum load and corresponding water to fuel ratio for each period of operation.~~
  - ~~(3) The fuel type used during all periods of turbine operation.~~
  - ~~(4) The sulfur content of the fuel oil.~~
  - ~~(5) For each calendar month, the total combined natural gas and No. 2 fuel oil usage for the month and for the last 12 month period.~~
  - ~~(6) Additional information required by 40 CFR 60.334, including the following:
    - ~~(A) For nitrogen oxides:
      - ~~(1) One-hour periods during which the average water to fuel ratio, as measured by the continuous monitoring system, falls below the water to fuel ratio determined to demonstrate compliance with Condition D.3.2(a); and~~~~~~

~~(2) Any period during which the fuel bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test.~~

**(A) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with Sec. 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Sec. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:**

**(1) Nitrogen oxides.**

**(i) For turbines using NO<sub>x</sub> and diluent CEMS:**

**(A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds the applicable emission limit in Sec. 60.332(a)(1) or (2). For the purposes of this subpart, a “4-hour rolling average NO<sub>x</sub> concentration” is the arithmetic average of the average NO<sub>x</sub> concentration measured by the CEMS for a given hour (corrected to 15 percent O<sub>2</sub> and, if required under Sec. 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO<sub>x</sub> concentrations immediately preceding that unit operating hour.**

**(B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO<sub>x</sub> concentration or diluent (or both).**

**(C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the Permittee has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. The Permittee does not have to report ambient conditions if the Permittee opts to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if the Permittee is not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).**

- (2) Sulfur dioxide.**  
**If the Permittee is required to monitor the sulfur content of the fuel under paragraph (h) of 40 CFR 60.334:**
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.**
  - (ii) For the option to sample each delivery of fuel oil, the Permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The Permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of 40 CFR 60.334. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.**
  - (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.**

5. According to the revised rule (40 CFR 60.334), if NO<sub>x</sub> CEMs are used to demonstrate compliance, then the requirements to report the average water-to-fuel ratio, average fuel consumption, and the graphs or figures developed during the initial performance test do not apply. Per IDEM's authorization of alternative monitoring requirements under 326 IAC 12-1(b), the following change has been incorporated in Condition D.3.11.

#### D.3.11 Reporting Requirements

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~~The summary shall contain the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).~~

6. Condition B.23(c) has been revised to reflect the correct name of the section.

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]**

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- (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, ~~IM & Billing~~, **Licensing, and Training** Section), to determine the appropriate permit fee.

**Conclusion**

The proposed permit modification to this stationary electric generating source shall be subject to the conditions of the attached Part 70 Significant Permit Modification No. 165-19845-00001.