



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: August 18, 2006
RE: SIEGCO / 163-17636-00001
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

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

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

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was 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 RENEWAL
OFFICE OF AIR QUALITY
INDIAN DEPARTMENT OF ENVIRONMENT
AND
Evansville EPA**

**Southern Indiana Gas and Electric Company
Broadway Avenue Generating Station
2600 Broadway Avenue
Evansville, Indiana 47712**

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

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

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

Operation Permit No.: T163-17636-00001	
Issued by: Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: August 18, 2006 Expiration Date: August 18, 2011

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SECTION A SOURCE SUMMARY

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

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

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

Responsible Official:	Vice President Power Supply
Source Address:	2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address:	20 N.W. Fourth Street, Evansville, Indiana 47741
General Source Phone Number:	(812) 491-4562
SIC Code:	4911
County Location:	Vanderburgh
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) One (1) natural gas-fired turbine, identified as Unit #1, constructed in 1971, with a maximum heat input capacity of 770 MMBtu/hr and a maximum generation capacity of 62 Megawatts, and exhausting to stack #1.
- (b) One (1) natural gas-fired turbine, identified as Unit #2, constructed in 1981, with a maximum heat input capacity of 900 MMBtu/hr (lower heating value (LHV) at 60°F) and a maximum generation capacity of 80 Megawatts, utilizing water injection for NOx emissions reduction, and exhausting to stack #2. This turbine also uses No. 1 and No. 2 fuel oils as alternative fuels. An inlet fogging system may be used to enhance power production. Under 40 CFR Part 60, Subpart GG, turbines Unit #2 is considered a stationary gas turbine.

[Note: The maximum generation capacity varies with operating conditions, such as temperature and humidity.]

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):

Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T163-17636-00001, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ and Evansville Environmental Protection Agency (Evansville EPA), upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ and Evansville EPA, 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 and Evansville EPA, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ and Evansville EPA, 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, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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 and Evansville EPA, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ and Evansville EPA, may require to determine the compliance status of the source.

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

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

- (a) The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-3. At a minimum, the PMP shall include:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and Evansville EPA, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and Evansville EPA. IDEM, OAQ and Evansville EPA, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, Evansville EPA, and the Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Evansville EPA
Telephone No.: 812-435-6145
Facsimile No.: 812-435-6155

Southwest Regional Office

Telephone No.: 1-888-672-8323, or
Telephone No. 812-380-2305
Facsimile No.: 812-380-2304

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

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

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

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

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

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

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

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in 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 and Evansville EPA, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T163-17636-00001 and issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or

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

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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

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

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

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

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

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or Evansville EPA, 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 or Evansville EPA, 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 or Evansville EPA, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or Evansville EPA, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and Evansville EPA, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source’s failure to have a permit is not a violation of 326 IAC 2-7 until OAQ or Evansville EPA takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and Evansville EPA, any additional information identified as being needed to process the application.

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

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

Indiana Department of Environmental Management

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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

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

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

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

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

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

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

and

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases in emissions at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, Evansville EPA, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of NO_x under 326 IAC 10-4.

B.21 Source Modification Requirement [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 and Evansville EPA prior to making any modification to the source. Pursuant to 326 IAC 1-2-42, "Modification" means one (1) or more of the following activities at an existing

source:

- (1) A physical change or change in the method of operation of any existing emissions unit that increases the potential to emit any regulated pollutant that could be emitted from the emissions unit, or that results in emissions of any regulated pollutant not previously emitted.
 - (2) Construction of one (1) or more new emissions units that have the potential to emit regulated air pollutants.
 - (3) Reconstruction of one (1) or more existing emission units that increases the potential to emit of any regulated air pollutant.
- (b) Any application requesting a source modification shall be submitted to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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.
- (d) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.

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

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

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

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

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

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

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ and Evansville EPA, 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 and Evansville EPA, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 thirty percent (30%) 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.2 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.3 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.4 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.5 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.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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

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

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

C.7 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 and Evansville EPA.

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

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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 and Evansville EPA 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 and Evansville EPA no later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and Evansville EPA, if the Permittee submits to IDEM, OAQ and Evansville EPA, a reasonable written explanation no later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within thirty (30) 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 thirty (30) days, the Permittee may extend the compliance schedule related to the equipment for an additional thirty (30) days provided the Permittee notifies:

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

and

Evansville EPA

Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

in writing, prior to the end of the initial thirty (30) 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.10 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee has prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 6, 2000.
- (b) Upon direct notification by IDEM, OAQ and Evansville EPA, 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.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

- (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.15 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 and Evansville EPA, 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 and Evansville EPA that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ and Evansville EPA may extend the retesting deadline.
- (c) IDEM, OAQ and Evansville EPA 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.16 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(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:.

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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 and Evansville EPA, on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2-3]
[326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility that a “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a “major modification” (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Prior to commencing the construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]
[326 IAC 2-3]

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

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713
- (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 or Evansville EPA 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) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:
 - (1) Submit to IDEM, OAQ and Evansville EPA, a copy of the information required by (c)(1) in Section C- General Record Keeping Requirements
 - (2) Submit a report to IDEM, OAQ and Evansville EPA, within sixty (60) days after the end of each year during which records are generated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

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

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

- (g) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit other than Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ and Evansville EPA:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(ii).
- (h) The report for project at an existing emissions unit other than Electric Utility Steam Generating Unit shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 E. Walnut Street, Suite 100
Evansville, Indiana 47713

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

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS - Turbine Unit #1

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

- (a) One (1) natural gas-fired turbine, identified as Unit #1, constructed in 1971, with a maximum heat input capacity of 770 MMBtu/hr and a maximum generation capacity of 62 Megawatts, and exhausting to stack #1.

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

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

D.1.1 PSD Minor Limits [326 IAC 2-2]

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

- (a) Only natural gas shall be combusted at turbine Unit #1.
- (b) NO_x emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) CO emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.2 Particulate Emission Limitations [326 IAC 6.5-8]

Pursuant to 326 IAC 6.5-8-13(a) (formerly 326 IAC 6-1-16(a)) (Vanderburgh County Particulate Matter Emission Limitations), turbine Unit #1 shall combust only natural gas.

Compliance Determination Requirements

D.1.3 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2, a continuous emission monitoring system for turbine Unit #1 shall be calibrated, maintained, and operated to measure NO_x and CO, and meet all applicable performance specifications of 326 IAC 3-5-2.
- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) Pursuant to 326 IAC 3-5-4, if revisions are made to the continuous monitoring standard operating procedures (SOP) by the Permittee, updates shall be submitted to the department biennially.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 or 326 IAC 10-4.

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

D.1.4 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1(a) and D.1.2, the Permittee shall maintain records of the fuel combusted in turbine Unit #1.
- (b) To document compliance with Conditions D.1.1(b) and D.1.1(c), the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be taken monthly and shall be sufficient to document compliance with Conditions D.1.1(b) and D.1.1(c):

- (1) Calendar dates covered in the compliance determination period;
 - (2) All continuous emissions monitoring data, pursuant to 326 IAC 3-5;
 - (3) The total NO_x and CO emissions for each month; and
 - (4) The weight of NO_x and CO emitted for each compliance period.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(b) and D.1.1(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS – Turbine Unit #2

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

- (b) One (1) natural gas-fired turbine, identified as Unit #2, constructed in 1981, with a maximum heat input capacity of 900 MMBtu/hr (lower heating value (LHV) at 60°F) and a maximum generation capacity of 80 Megawatts, utilizing water injection for NOx emissions reduction, and exhausting to stack #2. This turbine also uses No. 1 and No. 2 fuel oils as alternative fuels. An inlet fogging system may be used to enhance power production. Under 40 CFR Part 60, Subpart GG, turbines Unit #2 is considered a stationary gas turbine.

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

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

D.2.1 PSD Minor Limits [326 IAC 2-2]

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

- (a) The Permittee shall comply with the following requirements for turbine Unit #2:
- (1) Only natural gas, No.1 fuel oil, and No. 2 fuel oil shall be combusted at turbine Unit #2.
 - (2) NOx emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (3) CO emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (4) SO₂ emissions from turbine Unit #2 shall be less than 0.33 lbs/MMBtu when combusting distillate oil with a maximum heating value of 140,000 Btu/gal.
 - (5) The distillate oil used in turbine Unit #2 shall be less than 10,608 thousand gallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The Permittee shall comply with the following for the inlet fogging system used in conjunction with turbine Unit #2:
- (1) The Unit 2 inlet fogging system shall be used from the first of May to the end of September each year (i.e., the restricted period).
 - (2) NOx emissions from Unit #2 shall not exceed 61.3 tons per restricted period with compliance determined at the end of each month when the inlet fogging system is in use.
 - (3) CO emissions from Unit #2 shall not exceed 131 tons per restricted period with compliance determined at the end of each month when the inlet fogging system is in use.
 - (4) The distillate oil usage in turbine Unit #2 shall not exceed 1,753 thousand gallons (kgal) per restricted period with compliance determined at the end of each month while the inlet fogging system is in use.

D.2.2 PM Limitations [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (formerly 326 IAC 6-1-2(a)) (Nonattainment Area Particulate Limitations), particulate matter (PM) from turbine Unit #2 shall not exceed 0.03 grain per dry

standard cubic foot (gr/dscf) of exhaust air.

D.2.3 SO₂ Limitations [326 IAC 7-1.1-2]

- (a) Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from turbine Unit #2 shall not exceed 0.5 pounds per million Btu heat input, when combusting No. 1 or No. 2 fuel oils.
- (b) Pursuant to Construction Permit No. 6078 issued by the Evansville Environmental Protection Agency on May 21, 1980, and the Exemption from PSD Review letter issued by the Indiana Air Pollution Control Board on August 29, 1980, the Permittee shall comply with the following for turbine Unit #2:
 - (1) The SO₂ emissions from turbine Unit #2 shall not exceed 0.33 lbs/MMBtu while combusting distillate fuel oil; and
 - (2) Turbine Unit #2 shall burn either No. 1 or No. 2 fuel oil with a sulfur content of 0.3% or less, or natural gas.

Compliance Determination Requirements

D.2.4 Nitrogen Oxide Control

In order to comply with Condition D.2.1, the water injection for NO_x control shall be in operation and control emissions from turbine Unit #2 at all times that the associated facility is in operation.

D.2.5 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2 (PSD), a continuous monitoring system shall be calibrated, maintained, and operated to measure NO_x and CO, and meet all applicable performance specifications of 326 IAC 3-5-2.
- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) Pursuant to 326 IAC 3-5-4, if revisions are made to the continuous monitoring standard operating procedures (SOP) by the Permittee, updates shall be submitted to the department biennially.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, or 40 CFR 60.

D.2.6 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance with Conditions D.2.1(a)(4) and D.2.3 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.33 pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.2.7 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission notations of the turbine stack exhaust shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (6) below for turbine Unit #2. Records shall be taken monthly and shall be sufficient to document compliance with Condition D.2.1.
 - (1) Type of fuels combusted;
 - (2) Calendar dates covered in the compliance determination period;
 - (3) The dates and time of operation of the inlet fogging system;
 - (4) All continuous emissions monitoring data, pursuant to 326 IAC 3-5;
 - (5) The total NO_x and CO emissions for each month; and
 - (6) The weight of NO_x and CO emitted for each compliance period.
- (b) To document compliance with Conditions D.2.1 and D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit and the sulfur content limit established in Conditions D.2.1 and D.2.3.
 - (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) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used;

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, 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.
- (c) To document compliance with Condition D.2.7, the Permittee shall maintain records of visible emission notations of the Unit #2 stack exhaust when firing distillate oil.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1(a)(2), (a)(3), (a)(5), (b)(2), (b)(3), and (b)(4) 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).

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.2.10 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for turbine Unit #2, except as otherwise specified in 40 CFR Part 60, Subparts GG.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

and

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 East Walnut Street
Evansville, Indiana 47713

D.2.11 New Source Performance Standards for Stationary Gas Turbines Requirements [40 CFR Part 60, Subpart GG] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart GG, the Permittee shall comply with the provisions of New Source Performance Standards for Stationary Gas Turbines, which are incorporated by reference as 326 IAC 12, for turbine Unit #2.

§ 60.330 Applicability and designation of affected facility

- (a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas

turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of §60.332.

§ 60.331 Definitions.

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

(a) *Stationary gas turbine* means any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled. It may, however, be mounted on a vehicle for portability.

(b) *Simple cycle gas turbine* means any stationary gas turbine which does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or which does not recover heat from the gas turbine exhaust gases to heat water or generate steam.

(c) *Regenerative cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine.

(d) *Combined cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to heat water or generate steam.

(e) *Emergency gas turbine* means any stationary gas turbine which operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation.

(f) *Ice fog* means an atmospheric suspension of highly reflective ice crystals.

(g) *ISO standard day conditions* means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.

(h) *Efficiency* means the gas turbine manufacturer's rated heat rate at peak load in terms of heat input per unit of power output based on the lower heating value of the fuel.

(i) *Peak load* means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.

(j) *Base load* means the load level at which a gas turbine is normally operated.

(k) *Fire-fighting turbine* means any stationary gas turbine that is used solely to pump water for extinguishing fires.

(l) *Turbines employed in oil/gas production or oil/gas transportation* means any stationary gas turbine used to provide power to extract crude oil/natural gas from the earth or to move crude oil/natural gas, or products refined from these substances through pipelines.

(m) A *Metropolitan Statistical Area or MSA* as defined by the Department of Commerce.

(n) *Offshore platform gas turbines* means any stationary gas turbine located on a platform in an ocean.

(o) *Garrison facility* means any permanent military installation.

(p) *Gas turbine model* means a group of gas turbines having the same nominal air flow, combustor inlet pressure, combustor inlet temperature, firing temperature, turbine inlet temperature and turbine inlet pressure.

(q) *Electric utility stationary gas turbine* means any stationary gas turbine constructed for the purpose of supplying more than one-third of its potential electric output capacity to any utility power distribution

system for sale.

(r) *Emergency fuel* is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.

(s) *Unit operating hour* means a clock hour during which any fuel is combusted in the affected unit. If the unit combusts fuel for the entire clock hour, it is considered to be a full unit operating hour. If the unit combusts fuel for only part of the clock hour, it is considered to be a partial unit operating hour.

(t) *Excess emissions* means a specified averaging period over which either:

(1) The NO_x emissions are higher than the applicable emission limit in §60.332;

(2) The total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in §60.333; or

(3) The recorded value of a particular monitored parameter is outside the acceptable range specified in the parameter monitoring plan for the affected unit.

(u) *Natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalentents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

(v) *Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

(w) *Lean premix stationary combustion turbine* means any stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture for combustion in the combustor. Mixing may occur before or in the combustion chamber. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(x) *Diffusion flame stationary combustion turbine* means any stationary combustion turbine where fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(y) *Unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

§ 60.332 Standard for nitrogen oxides.

(a) On and after the date on which the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

(1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the

atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

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

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and 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, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(4) If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under §60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F(NO _x percent by volume)
N [1e] 0.015.....	0
0.015 < N[1e] 0.1.....	0.04(N)
0.1 < N [1e] 0.25.....	0.004+0.0067(N-0.1)
N > 0.25.....	0.005

Where:

N = the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by §60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

(b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

(f) Stationary gas turbines using water or steam injection for control of NO_x emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.

§ 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by §60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.

(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

§ 60.334 Monitoring of operations.

(b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO_x emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and O₂ monitors. As an alternative, a CO₂ monitor may be used to adjust the measured NO_x concentrations to 15 percent O₂ by either converting the CO₂ hourly averages to equivalent O₂ concentrations using Equation F–14a or F–14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O₂, or by using the CO₂ readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as follows:

(1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO_x and diluent monitors may be performed individually or on a combined basis, *i.e.*, the relative accuracy tests of the CEMS may be performed either:

(i) On a ppm basis (for NO_x) and a percent O₂ basis for oxygen; or

(ii) On a ppm at 15 percent O₂ basis; or

(iii) On a ppm basis (for NO_x) and a percent CO₂ basis (for a CO₂ monitor that uses the procedures in Method 20 to correct the NO_x data to 15 percent O₂).

(2) As specified in §60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

(3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in §60.13(h).

(i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NO_x and diluent, the data acquisition and handling system must calculate and record the hourly NO_x emissions in the units of the applicable NO_x emission standard under §60.332(a), *i.e.*, percent NO_x by volume, dry basis, corrected to 15 percent O₂ and International Organization for Standardization (ISO) standard conditions (if required as given in §60.335(b)(1)). For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂, a diluent cap value of 19.0 percent O₂ may be used in the emission calculations.

(ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (H_o), minimum ambient temperature (T_a), and minimum combustor inlet absolute pressure (P_o) into the ISO correction equation.

(iii) If the owner or operator has installed a NO_x CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in §60.7(c).

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

(1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in §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 §60.17), which measure the major sulfur compounds may be used; and

(2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.*, if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative.

(3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not 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 §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

(i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

(i) The frequency of determining the sulfur and nitrogen 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) *Gaseous fuel.* Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

(j) 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 owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §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 §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

(1) Nitrogen oxides.

(ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.

(A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.

(B) 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 that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

(iii) For turbines using NO_x and diluent CEMS:

(A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). For the purposes of this subpart, a “4-hour rolling average NO_x concentration” is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x 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_x 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 owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).

(2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:

(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) If the option to sample each delivery of fuel oil has been selected, the owner or operator 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 owner or operator 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 this section. 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.

(3) *Ice fog*. Each period during which an exemption provided in §60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(5) All reports required under §60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter.

§ 60.335 Test methods and procedures.

(a) The owner or operator shall conduct the performance tests required in §60.8, using either

(1) EPA Method 20,

(2) ASTM D6522–00 (incorporated by reference, see §60.17), or

(3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.

(4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from

each hole may be used to sample simultaneously at the required points.

(5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:

(i) You may perform a stratification test for NO_x and diluent pursuant to

(A) [Reserved]

(B) The procedures specified in section 6.5.6.1(a) through (e) appendix A to part 75 of this chapter.

(ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within ±10 percent of the mean normalized concentration for all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NO_x concentration during the stratification test; or

(B) If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within ±5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.

(6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 as follows:

(1) For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{xo}) corrected to 15 percent O₂ shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$NO_x = (NO_{x_o})(P_r/P_o)^{0.5} e^{19} (H_o - 0.00633) (288^\circ K/T_a)^{1.53}$$

Where:

NO_x = emission concentration of NO_x at 15 percent O₂ and ISO standard ambient conditions, ppm by volume, dry basis,

NO_{xo} = mean observed NO_x concentration, ppm by volume, dry basis, at 15 percent O₂,

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P_o = observed combustor inlet absolute pressure at test, mm Hg,

H_o = observed humidity of ambient air, g H₂O/g air,

e = transcendental constant, 2.718, and

T_a = ambient temperature, °K.

(2) The 3-run performance test required by §60.8 must be performed within ±5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any

emergency fuel (as defined in §60.331).

(5) If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in §60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.

(6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.

(7) If the owner or operator elects to install and certify a NO_x CEMS under §60.334(e), then the initial performance test required under §60.8 may be done in the following alternative manner:

(i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.

(ii) Use the test data both to demonstrate compliance with the applicable NO_x emission limit under §60.332 and to provide the required reference method data for the RATA of the CEMS described under §60.334(b).

(iii) The requirement to test at three additional load levels is waived.

(9) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:

(ii) For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.

(10) If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see §60.17); or

(ii) For gaseous fuels, ASTM D1072–80, 90 (Reapproved 1994); D3246–81, 92, 96; D4468–85 (Reapproved 2000); or D6667–01 (all of which are incorporated by reference, see §60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

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

(1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in §60.8 to ISO standard day conditions.

D.2.12 One Time Deadlines Relating to New Source Performance Standards for Electric Utility Steam Generating Units for Stationary Gas Turbines [40 CFR Part 60, Subpart GG]

The Permittee must conduct the initial performance tests within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup of turbine Unit #2.

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

ORIS Code: 1011

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

- (a) One (1) natural gas-fired turbine, identified as Unit #1, constructed in 1971, with a maximum heat input capacity of 770 MMBtu/hr and a maximum generation capacity of 62 Megawatts, and exhausting to stack #1.
- (b) One (1) natural gas-fired turbine, identified as Unit #2, constructed in 1981, with a maximum heat input capacity of 900 MMBtu/hr (lower heating value (LHV) at 60°F) and a maximum generation capacity of 80 Megawatts, utilizing water injection for NO_x emissions reduction, and exhausting to stack #2. This turbine also uses No. 1 and No. 2 fuel oils as alternative fuels. An inlet fogging system may be used to enhance power production. Under 40 CFR Part 60, Subpart GG, turbines Unit #2 is considered a stationary gas turbine.

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

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

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

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

- (a) The owners and operators of the NO_x budget source and each NO_x budget unit shall operate each unit in compliance with this NO_x budget permit.
- (b) The NO_x budget units subject to this NO_x budget permit are: Turbine Units #1 and #2.

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

- (a) The owners and operators and, to the extent applicable, the NO_x authorized account representative of the NO_x budget source and each NO_x budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12.
- (b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NO_x budget emissions limitation under 326 IAC 10-4-4(c) and Condition E.4, Nitrogen Oxides Requirements.

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

- (a) The owners and operators of the NO_x budget source and each NO_x budget unit at the source shall hold NO_x allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO_x allowance transfer deadline, in each unit's compliance account and the source's overdraft account in an amount:
 - (1) Not less than the total NO_x emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;
 - (2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or
 - (3) To account for withdrawal from the NO_x budget trading program, or a change in regulatory status of a NO_x budget opt-in unit.
- (b) Each ton of NO_x emitted in excess of the NO_x budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.

- (c) NO_x allowances shall be held in, deducted from, or transferred among NO_x allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.
- (d) A NO_x allowance shall not be deducted, in order to comply with the requirements under (a) above and 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NO_x allowance was allocated.
- (e) A NO_x allowance allocated under the NO_x budget trading program is a limited authorization to emit one (1) ton of NO_x in accordance with the NO_x budget trading program. No provision of the NO_x budget trading program, the NO_x budget permit application, the NO_x budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.
- (f) A NO_x allowance allocated under the NO_x budget trading program does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO_x allowance to or from each NO_x budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, this NO_x budget permit of the NO_x budget unit by operation of law without any further review.

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

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

- (a) Surrender the NO_x allowances required for deduction under 326 IAC 10-4-10(k)(5).
- (b) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).

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

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

- (a) The account certificate of representation for the NO_x authorized account representative for the source and each NO_x budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NO_x authorized account representative.
- (b) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide for a three (3) year period for record keeping, the three (3) year period shall apply.
- (c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x budget trading program.
- (d) Copies of all documents used to complete a NO_x budget permit application and any other submission under the NO_x budget trading program or to demonstrate compliance with the requirements of the NO_x budget trading program.

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

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

- (a) The NO_x authorized account representative of the NO_x budget source and each NO_x budget unit at the source shall submit the reports and compliance certifications required under the NO_x budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.
- (b) Pursuant to 326 IAC 10-4-4(e) and 326 IAC 10-4-6(e)(1), each submission shall include the following certification statement by the NO_x authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NO_x budget sources or NO_x budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

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

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

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

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

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

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

- (a) Any person who knowingly violates any requirement or prohibition of the NO_x budget trading program, a NO_x budget permit, or an exemption under 326 IAC 10-4-3 shall be subject to enforcement pursuant to applicable state or federal law.
- (b) Any person who knowingly makes a false material statement in any record, submission, or report under the NO_x budget trading program shall be subject to criminal enforcement pursuant to the applicable state or federal law.
- (c) No permit revision shall excuse any violation of the requirements of the NO_x budget trading program that occurs prior to the date that the revision takes effect.

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

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001

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:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001

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">C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); andC The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16. |
|--|

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001
Facility: Turbine Unit #1
Parameter: NOx Emissions
Limit: Less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001
Facility: Turbine Unit #1
Parameter: CO Emissions
Limit: Less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001
Facility: Turbine Unit #2
Parameter: NOx Emissions
Limit: Less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001
Facility: Turbine Unit #2
Parameter: CO Emissions
Limit: Less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
Part 70 Permit No.: T163-17636-00001
Facility: Turbine Unit #2
Parameter: Distillate Oil Usage
Limit: 10,608 Kgal per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Seasonal Inlet Fogging Report

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
 Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
 Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
 Part 70 Permit No.: T163-17636-00001
 Facility: Turbine Unit #2 with Inlet Fogging in Use
 Parameter: NO_x Emissions, CO Emissions, Distillate Oil Usage
 Limit: Less than 61.3 tons for NO_x emissions, less than 131 tons for CO emissions, and less than 1,753 Kgals per 5 consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	May	June	July	August	September	Season Total	Season Limit
NO _x Emissions (Tons)							61.3 Tons
CO Emissions (Tons)							131 Tons
Distillate Oil Usage (Kgal)							1,753 Kgals

- 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.

This form is due within thirty (30) days after September 30.

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

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

Source Name: Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
 Source Address: 2600 Broadway Avenue, Evansville, Indiana 47712
 Mailing Address: 20 N.W. Fourth Street, Evansville, Indiana 47741
 Part 70 Permit No.: T163-17636-00001

Months: _____ **to** _____ **Year:** _____

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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

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

**Addendum to the Technical Support Document
for a Part 70 Operating Permit Renewal**

Source Background and Description

Source Name:	Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Location:	2600 Broadway Avenue, Evansville, Indiana 47712
County:	Vanderburgh
SIC Code:	4911
Operation Permit No.:	T163-6899-00001
Operation Permit Issuance Date:	February 10, 1999
Permit Renewal No.:	T163-17636-00001
Permit Reviewer:	ERG/YC

On March 2, 2006, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier, Evansville, Indiana, stating that Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station had applied for a Part 70 Operation Permit Renewal to operate a stationary electric utility peaking station. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 20, 2006, City of Evansville, Environmental Protection Agency (referred to as “Evansville EPA”) submitted comments on the proposed Part 70 Operating Permit Renewal. The summary of the comments is as follows (bolded language has been added, the language with a line through it has been deleted):

Comment 1:

Condition A.1 - General Information: Vanderburgh County has been redesignated to “Attainment” of the Ozone 8-hour NAAQS, effective January 30, 2006 (70 FR 249 dated December 29, 2005).

Response to Comment 1:

IDEM, OAQ acknowledged that EPA has redesignated Vanderburgh County to attainment area for the 8-hour ozone NAAQS. However, this change has not been included into the Indiana State Rules. Since the Permittee shall comply with the most stringent requirements between the federal regulations and state rules, the classification of Vanderburgh County remains nonattainment for the 8-hour ozone standard until such time the state rule has been revised. No change has been made as the result of this comment.

Comment 2:

Condition B.4 - The Evansville EPA requested this condition be revised as follows: “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 the Evansville Environmental Protection Agency (Evansville EPA), IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

Response to Comment 2:

Conditions in Section B and C of the permit have been revised to add the reference to Evansville EPA wherever the IDEM, OAQ is referred in the conditions. The Evansville EPA's contact information listed below has also been added to the permit as needed.

Evansville EPA
Suite 100, C.K. Newsome Community Center
100 East Walnut Street
Evansville, Indiana 47713
Telephone No.: 812-435-6145
Facsimile No.: 812-435-6155

Comment 3:

Condition B.9 - Annual Compliance Certification: The Evansville EPA requested revising the permit to require the source to submit a copy of the Annual Compliance Certification to the Evansville EPA at Suite 100 – C.K. Newsome Community Center, 100 East Walnut Street, Evansville, Indiana 47713.

Comment 4:

Condition B.11(b)(5) - Emergency Provisions: The Evansville EPA requested that the permit be revised to require the source to notify the Evansville EPA as well as IDEM. Contact information is provided above.

Comment 5:

Condition B.15 (a) - Deviations from Permit Requirements and Conditions: The Evansville EPA requested that the permit be revised to require the source to notify the Evansville EPA as well as IDEM. Contact information is provided above.

Comment 6:

Condition B.20 - Operational Flexibility: The Evansville EPA requested that the permit be revised to require the source to notify the Evansville EPA as well as IDEM and U.S. EPA Region V. Contact information is provided above.

Comment 7:

Condition B.22 - Inspection and Entry: The Evansville EPA requested that the permit be revised to include Evansville EPA staff.

Comment 8:

Condition B.23 - Annual Fee Payment: The contract between IDEM and Evansville EPA authorizes the Evansville EPA to invoice the source directly for 50% of the Annual Operating Fee. The Evansville EPA requests that the permit be revised to include the following: "The Permittee shall pay annual fees to the Evansville Environmental Protection Agency by the date specified on the invoice."

Comment 9:

Condition C.9 - Compliance Monitoring: The Evansville EPA requested that the permit be revised to require the source to notify the Evansville EPA as well as IDEM. Contact information is provided above.

Response to Comments 3 through 9:

The suggested changes in comments 3 through 9 have been made as already noted in the response to Comment 2.

Comment 10:

Condition C.10 - The Evansville EPA noted there is no requirement for the source to periodically calibrate monitoring equipment (see D.1.3, D.1.4, D.2.5 and D.2.8). The Evansville EPA requests that IDEM requires the source to calibrate monitoring equipment at reasonable intervals and to maintain records of the calibration and calibration results.

Response to Comment 10:

The calibration requirements for the CEMS are already included in Conditions D.1.3(a) and D.2.5(a). Pursuant to Conditions D.1.3(a) and D.2.5(a), the CEMS shall comply with the performance specifications of 326 IAC 3-5-2. Pursuant to 326 IAC 3-5-2, the Permittee shall follow the manufacturer's procedure for calibration. Therefore, IDEM, OAQ does not include the specific calibration frequency or recordkeeping requirements for the CEMS in the permit.

Comment 11:

Condition C.16 - Emission Statement: The Evansville EPA requested that the permit be revised to require the source to submit a copy of the Emission Statement to the Evansville EPA at the address noted above.

Comment 12:

Condition C.18 - General Reporting Requirements: The Evansville EPA requested the permit be revised to require the source to submit the Quarterly Deviation and Compliance Monitoring Report to the Evansville EPA as well as IDEM. Contact information is provided above.

Response to Comments 11 through 12:

The suggested changes in comments 11 and 12 have been made as noted in the response to Comment 2.

Comment 13:

Condition D.1.3 - The Evansville EPA stated that there is no requirement for the source to periodically calibrate monitoring equipment (see C.10, D.1.4, D.2.5 and D.2.8). The Evansville EPA requests IDEM require the source to calibrate monitoring equipment at reasonable intervals and to maintain records of the calibration and calibration results.

Comment 14:

Condition D.1.4 - The Evansville EPA requested this condition be modified to require records of the periodic calibration of monitoring equipment be maintained (see C.10, D.1.3, D.2.5 and D.2.8).

Response to Comments 13 and 14:

No specific calibration intervals or record keeping requirements for the CEMS will be included in the permit because the Permittee is required to follow the manufacturer's procedure for calibration, pursuant to 326 IAC 3-5-2. Therefore, no change has been made as a result of these comments.

Comment 15:

Condition D.2.1 - PSD Minor Limits: The Evansville EPA has concerns regarding the NO_x limit in Condition D.2.1 for the following reasons:

- (a) Testing for NO_x emissions for Unit #2 has been performed on two occasions. The first testing was conducted in December 1981 to comply with 40 CFR 60, Subpart GG and provided an emission rate of 0.34 lb/MM Btu @ 100% load (86 MW).
- (b) The second test occurred on August 20, 2002 prompted by SIGECO's installation of an Inlet Fogging device. This test resulted in an emission rate (fogger off) of 0.205 lb/MM Btu @ 100 % load (64 MW); see the accompanying chart, titled "SIGECO BAGS CT #2 1981 & 2002 NO_x Stack Test Data".

The Third Significant Permit Modification (#T163-16220- 00001) of the previous Part 70 permit, while in draft form, proposed a new permit limitation of 0.21 lb/MM Btu for Unit #2. This proposed limit was essentially equal to the "Fogger Off" test value.

At that time, the Evansville EPA expressed concern that SIGECO would routinely exceed the proposed NO_x emission limit for the following reasons:

1. Operating conditions such as temperature and humidity play a major role in turbine performance.
2. The conditions required for maximum output (or fuel input) and thus maximum NO_x emissions are low ambient temperatures, as was the case for Unit #1's February 2002, testing, and for the Unit #2's December 1981 testing.
3. The 2002 Unit #2 test data was collected in August, during the heat of summer (noted that this is the appropriate time for inlet fogging use). Although the turbine may have been operating at full load (roughly equivalent to 75% of the load achieved during the 1981 test), the high ambient temperatures lowered turbine capacity. Thus, NO_x emissions were lower than if the test had been conducted during cold weather.

Additionally, the CEMS monitor for Unit #2 has shown emissions greater than 0.21 lbs/MMBtu. This occurred on 10/20/03, a moderate ambient temperature day, the CEMS monitored six hours (out of seven) when NO_x emissions were above the proposed limit, with a maximum hourly rate at 0.27lb/MMBtu.

The Evansville EPA expects that SIGECO could be in violation of the proposed NO_x limit whenever ambient temperatures are lower than the temperature(s) that existed during the August 2002 compliance test.

Therefore, the Evansville EPA requested that IDEM reevaluate the 0.21 lb /MMBtu NO_x limit. A monthly or annual limit as is found in the current permit (T163-6899-00001) may be more appropriate.

Response to Comment 15:

The lbs/MMBtu NO_x and CO emission limits for turbine Units #1 and #2 were removed in the TSD addendum for SPM #163-16220-00001, issued on May 8, 2003, as a the result of Evansville EPA's comment at that time. These changes were made because (1) there is no specific lbs/MMBtu limit in state rules or federal rules for combustion turbines; and (2) compliance with the PSD minor limits (annual NO_x and CO emission limits) is demonstrated by recording the actual NO_x and CO emissions using the CEMS.

The lbs/MMBtu NO_x and CO limits for turbine Units #1 and #2, which are from the first Part 70 permit (T163-2899-00001, issued on February 10, 2001), were included in the draft Part 70 operation permit renewal by mistake. Therefore, the lbs/MMBtu CO and NO_x emission limits will be removed from the permit and Conditions D.1.1, D.1.4, D.1.5, D.2.1, and D.2.9 have been revised as follows:

D.1.1 PSD Minor Limits [326 IAC 2-2]

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

- (a) Only natural gas shall be combusted at turbine Unit #1.
- ~~(b) NOx emissions from turbine Unit #1 shall be less than 0.545 lbs/MMBtu.~~
- (eb) NOx emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- ~~(d) CO emissions from turbine Unit #1 shall be less than 0.084 lbs/MMBtu.~~
- (ec) CO emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.4 Record Keeping Requirements

...

- (b) To document compliance with Conditions D.1.1**(b) and (c)** and ~~D.1.1(e)~~, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be taken monthly and shall be sufficient to document compliance with Conditions D.1.1**(b) and (c)** and ~~D.1.1(e)~~:

...

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1**(b) and (c)** and ~~D.1.1(e)~~ 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).

D.2.1 PSD Minor Limits [326 IAC 2-2]

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

- (a) The Permittee shall comply with the following requirements for turbine Unit #2:
 - (1) Only natural gas, No.1 fuel oil, and No. 2 fuel oil shall be combusted at turbine Unit #2.
 - ~~(2) NOx emissions from turbine Unit #2 shall be less than 0.21 lbs/MMBtu.~~
 - (32) NOx emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - ~~(4) CO emissions from turbine Unit #2 shall be less than 0.084 lbs/MMBtu.~~
 - (53) CO emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (64) SO₂ emissions from turbine Unit #2 shall be less than 0.33 lbs/MMBtu when combusting distillate oil with a maximum heating value of 140,000 Btu/gal.
 - (75) The distillate oil used in turbine Unit #2 shall be less than 10,608 thousand gallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month.

...

D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1 **(a)(2)**, (a)(3), (a)(5), ~~(a)(7)~~, (b)(2), (b)(3), and (b)(4) 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).

Comment 16:

Condition D.2.5 (a) - The Evansville EPA stated that there is no requirement for the source to periodically calibrate monitoring equipment (see C.10, D.1.3, D.1.4 and D.2.8). The Evansville EPA requested IDEM require the source to calibrate monitoring equipment at reasonable intervals and to maintain records of the calibration and calibration results.

Comment 17:

Condition D.2.8 - The Evansville EPA requested this condition be modified to require records of the periodic calibration of monitoring equipment be maintained (see C.10, D.1.3, D.1.4 and D.2.5).

Response to Comments 16 and 17:

See the response to Comments 13 and 14. No change has been made as the result of these comments.

Comment 18:

Condition D.2.10 (b) - General Provisions relating to New Source Performance Standards: The Evansville EPA requested the permit be revised to require the source to submit copies of the required notifications and reports to Evansville EPA as well as IDEM. Contact information is provided above.

Response to Comment 18:

Condition D.2.10 (b) has been revised as follows:

D.2.10 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

...

- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

and

**Evansville EPA
Suite 100, C.K. Newsome Community Center
100 East Walnut Street
Evansville, Indiana 47713**

Comment 19:

Condition D.2.12 - One Time Deadlines. Evansville EPA stated that the source conducted an initial performance test in December 1981.

Response to Comment 19:

Pursuant to 326 IAC 2-7-5, IDEM must include all applicable requirements in a Part 70 permit. Since the initial performance test requirement in NSPS, Subpart GG is an applicable requirement, it should be included in the Part 70 permit. If the Permittee has performed such test, they are in compliance with this limit. No change has been made as a result of this comment.

Upon further review, the OAQ has decided to make the following revisions to the permit.

1. The phone number and the fax number listed in Condition B.11 - Emergency Provisions and the Emergency Occurrence Report has been changed so that the OAQ's receptionist number is listed and the fax number for the compliance branch is listed. These numbers have been changed as shown throughout the permit.

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

...

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

- (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**0178** (ask for Compliance Section)
Facsimile Number: 317-233-5967**6865**.

...

2. Condition C.17 – General Record Keeping Requirements and Condition C.18 – General Reporting Requirements have been revised as follows:

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

..

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

- (1) Prior to commencing the construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:

...

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

...

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

...

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2-3]
[326 IAC 2-3]

...

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

...

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

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

...

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

- (1) The name, address, and telephone number of the major stationary source.
- (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
- (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

...

3. IDEM, OAQ has made the following corrections to Conditions B.9, C.7, and D.2.12:

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. All 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 April 15 of each year to:

C.7 Performance Testing [326 IAC 3-6]

...

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

D.2.12 One Time Deadlines Relating to New Source Performance Standards for Electric Utility Steam Generating Units for Stationary Gas Turbines [40 CFR Part 60, Subpart GG]

The Permittee must conduct the initial performance tests within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup of turbine Unit #2.

D.2.6 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance with Conditions D.2.1(a)(64) and D.2.3 shall be determined utilizing one of the following options:

...

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

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Southern Indiana Gas and Electric Company – Broadway Avenue Generating Station
Source Location:	2600 Broadway Avenue, Evansville, Indiana 47712
County:	Vanderburgh
SIC Code:	4911
Operation Permit No.:	T163-6899-00001
Operation Permit Issuance Date:	February 10, 1999
Permit Renewal No.:	T163-17636-00001
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Southern Indiana Gas and Electric Company (SIGECO) – Broadway Avenue Generating Station relating to the operation of an electric utility peaking station.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas-fired turbine, identified as Unit #1, constructed in 1971, with a maximum heat input capacity of 770 MMBtu/hr and a maximum generation capacity of 62 Megawatts, and exhausting to stack #1.
- (b) One (1) natural gas-fired turbine, identified as Unit #2, constructed in 1981, with a maximum heat input capacity of 900 MMBtu/hr (lower heating value (LHV) at 60°F) and a maximum generation capacity of 80 Megawatts, utilizing water injection for NOx emissions reduction, and exhausting to stack #2. This turbine also uses No. 1 and No. 2 fuel oils as alternative fuels. An inlet fogging system may be used to enhance power production. Under 40 CFR Part 60, Subpart GG, turbines Unit #2 is considered a stationary gas turbine.

[Note: The maximum generation capacity varies with operating conditions, such as temperature and humidity.]

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

New Emission Units and Pollution Control Equipment

There are no new emission units or pollution control equipment included in this Part 70 operating permit renewal.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. The degreasing operations at this source were constructed before 1980.
- (c) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including the following:
 - (1) One (1) fuel oil tank, with a maximum capacity of 300 gallons.
 - (2) One (1) waste oil tank, with a maximum capacity of 300 gallons.
- (d) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (e) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa (15mm Hg or 0.3 psi) measured at 38°C (100°F) or having a vapor pressure equal to or less than 0.7 kPa (5mm Hg or 0.1 psi) measured at 20°C (68°F). The usage of all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (f) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (g) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (h) Asbestos abatement projects regulated by 326 IAC 14-10.
- (i) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (j) On-site fire and emergency response training approved by the department.
- (k) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

Two (2) distillate fuel oil storage tanks, identified as Fuel Oil Tank #1 and Fuel Oil Tank #2, constructed in 1971, each with a maximum capacity of 2,000,000 gallons.

Existing Approvals

The source has been operating under Operating Permit T163-6899-00001, issued on February 10, 1999 and the following approvals:

- (a) First Significant Source Modification #163-12400-00001, issued on July 19, 2001.
- (b) First Significant Permit Modification #163-14083-00001, issued on July 19, 2001.
- (c) First Administrative Amendment #163-14977-00001, issued on November 2, 2001.
- (d) First Reopening #163-13509-00001, issued on January 24, 2001.
- (e) Second Significant Permit Modification #163-15853-00001, issued on January 31, 2003.

- (f) Second Administrative Amendment #163-16523-00001, issued on February 11, 2003.
- (g) Third Significant Permit Modification #163-16220-00001, issued on May 8, 2003.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 operating permit renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit renewal application for the purposes of this review was received on May 12, 2003. Additional information was received on February 25, 2005.

Emission Calculations

See Appendix A of this document for detailed calculations (pages 1 through 4).

Potential to Emit of the Source

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

The source was issued a Part 70 Operating Permit on February 10, 1999. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Turbine Unit #1	22.3	22.3	11.5	7.08	Less than 250	Less than 250	3.29
Turbine Unit #2	47.3	47.3	Less than 245	8.28	Less than 250	Less than 250	4.73
Insignificant Activities	Less than 5.00	Less than 5.00	-	Less than 1.00	-	-	Less than 1.00
PTE of the Entire Source	Less than 74.6	Less than 74.6	Less than 257	Less than 16.4	Less than 500	Less than 500	Less than 9.02
PSD and Emission Offset Major Source Thresholds	250	250	250	100	250	100	NA

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO₂, CO, and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
 The gas turbines at this source are single cycle turbines, which do not generate steam. Therefore, this source is not considered a steam electric plant, and it is not in one of the 28 listed source categories under 326 IAC 2-2. In addition, there are no applicable New Source Performance Standards in effect on August 7, 1980. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD or Emission Offset.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	2.00
PM10	2.00
SO ₂	1.00
VOC	1.00
CO	11.0
NO _x	99.0
A single HAP	Less than 10
Total HAPs	Less than 25

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM-10	Attainment
PM _{2.5}	Nonattainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as basic nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset.
- (b) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Vanderburgh County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions pursuant to the Non-attainment New Source Review requirements.
- (c) Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (d) Fugitive Emissions
The gas turbines at this source are single cycle turbines, which do not generate steam. Therefore, this source is not considered a steam electric plant, and it is not in one of the 28 listed source categories under 326 IAC 2-2. In addition, there are no applicable New Source Performance Standards in effect on August 7, 1980. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD or Emission Offset.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) The New Source Performance Standards (NSPS) for Fossil-Fuel-Fired Steam Generators (326 IAC 12 and 40 CFR 60, Subpart D) are not applicable to this source. Pursuant to the interpretive rule published in the Federal Register on May 25, 2000, the combustion turbines are not considered to be steam generating units and, therefore, are not subject to 40 CFR 60, Subpart D.
- (b) Both of the combustion turbines, Unit #1 and Unit #2, have maximum heat input capacities greater than 250 MMBtu/hr. However, pursuant to the interpretive rule published in the Federal Register on May 25, 2000, the combustion turbines are not considered to be steam generating units. Therefore, the New Source Performance Standard (NSPS) for Electric Utility Steam Generating Units (326 IAC 12, 40 CFR 60.40a – 60.49a, Subpart Da) are not applicable to this source.
- (c) Turbine Unit #2, which uses natural gas, No. 1 and No. 2 fuel oils as fuels, is subject to the New Source Performance Standard for Stationary Gas Turbines (40 CFR 60.330-60.335, Subpart GG), which is incorporated by reference as 326 IAC 12. Turbine Unit #2 is subject to the requirements of this rule because it has a heat input capacity greater than 10 MMBtu/hr and was constructed after October 3, 1977.

Nonapplicable portions of the NSPS will not be included in the permit. Turbine Unit #2 is subject to the following portions of Subpart GG:

1. 40 CFR 60.330
2. 40 CFR 60.331
3. 40 CFR 60.332(a)(1)
4. 40 CFR 60.332(a)(4)
5. 40 CFR 60.332(b)
6. 40 CFR 60.332(f)
7. 40 CFR 60.333
8. 40 CFR 60.334(b)
9. 40 CFR 60.334(c)
10. 40 CFR 60.334(h)(1)
11. 40 CFR 60.334(h)(2)
12. 40 CFR 60.334(h)(3)
13. 40 CFR 60.334(i)(1)

14. 40 CFR 60.334(i)(2)
15. 40 CFR 60.334(j)(1)(ii)
16. 40 CFR 60.334(j)(1)(iii)
17. 40 CFR 60.334(j)(2)
18. 40 CFR 60.334(j)(3)
19. 40 CFR 60.334(j)(5)
20. 40 CFR 60.335(a)
21. 40 CFR 60.335(b)(1)
22. 40 CFR 60.335(b)(2)
23. 40 CFR 60.335(b)(5)
24. 40 CFR 60.335(b)(6)
25. 40 CFR 60.335(b)(7)
26. 40 CFR 60.335(b)(9)
27. 40 CFR 60.335(b)(10)
28. 40 CFR 60.335(b)(11)
29. 40 CFR 60.335(c)(1)

Turbine Unit #1 was constructed before October 3, 1977. Therefore, turbine Unit #1 is not subject to this NSPS.

- (d) All the storage tanks at this source were constructed before 1973. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (326 IAC 12, 40 CFR 60.110 - 113, Subpart K) are not included in this permit.
- (e) All the storage tanks at this source were constructed before 1973. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (326 IAC 12, 40 CFR 60.110b - 117b, Subpart Kb) are not included in this permit.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.
- (g) The potential to emit HAPs from from this source is less than 10 tons per year for a single HAP and less than 25 tons per year for total HAPs. Therefore, this existing source is a HAP minor source and the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD) are not applicable.
- (h) This existing source is a minor source of HAPs. Therefore, the combustion turbines at this source are not subject to the NESHAP for Stationary Combustion Turbines (40 CFR 63, Subpart YYYY).
- (i) The insignificant degreasing activities are not subject to the requirements of the NESHAP for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) because they do not use halogenated HAP solvents.
- (j) The combustion turbines at this source are simple combustion turbines that commenced operation before November 15, 1990. Therefore, the combustion turbines at this source are not subject to the Acid Rain Program (40 CFR Part 72 through 40 CFR Part 80), pursuant to 40 CFR 72.6(b)(1).
- (k) This Part 70 permit does involve a pollutant-specific emissions unit (turbine Unit #2) as defined in 40 CFR 64.1:
 - (1) with the potential to emit NOx before controls equal to or greater than the major source threshold;

- (2) that is subject to an emission limitation or standard; and
- (3) uses control devices (water injection system) as defined in 40 CFR Part 64.1 to comply with that emission limitation or standard.

However, the Permittee has been required to install a NO_x CEM with turbine Unit #2 to monitor the NO_x emissions continuously, which meets the definition of a continuous compliance determination method in 40 CFR 64.1. Therefore, turbine Unit #2 is exempt from the requirements of 40 CFR 64 (CAM), pursuant to 40 CFR 64.2(b)(1)(vi).

State Rule Applicability – Entire Source

326 IAC 2-3 (Emission Offset)

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) classified 23 Indiana counties and one partial county as nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Vanderburgh County has been designated as nonattainment for the 8-hour ozone standard.

This source was constructed before 1980 and modified in 1981 and 2001. Since no modifications have been completed since the effective date of the 8-hr ozone standard, this source is not subject to the requirements of 326 IAC 2-3 (Emission Offset). However, this source is classified as a major source for the 8-hr ozone standard under Emission Offset review because the potential to emit NO_x is greater than 100 tons per year from this source.

326 IAC 2-2 (Prevention of Significant Deterioration)

This electric utility generating plant was constructed before 1980 and modified in 1981 and 2001. This source is not in 1 of the 28 PSD source categories and has potential to emit SO₂ and CO greater than 250 tons per year. Therefore, this existing source is a PSD major source.

The modification in 1981 included the construction of turbine Unit #2. The modification in 2001 permitted the installation of an inlet fogging system for turbine Unit #2. In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following requirements:

For turbine Unit 1:

- (a) Only natural gas shall be combusted at turbine Unit #1.
- (b) NO_x emissions from turbine Unit #1 shall be less than 0.545 lbs/MMBtu.
- (c) NO_x emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (d) CO emissions from turbine Unit #1 shall be less than 0.084 lbs/MMBtu.
- (e) CO emissions from turbine Unit #1 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits for turbine Unit #1 ensures that the construction of turbine Unit #2 is not subject to the requirements of 326 IAC 2-2 (PSD).

For turbine Unit 2:

- (a) Only natural gas, No.1 fuel oil, and No. 2 fuel oil shall be combusted at turbine Unit #2.
- (b) NO_x emissions from turbine Unit #2 shall be less than 0.21 lbs/MMBtu.
- (c) NO_x emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

- (d) CO emissions from turbine Unit #2 shall be less than 0.084 lbs/MMBtu.
- (e) CO emissions from turbine Unit #2 shall be less than 250 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (f) SO₂ emissions from turbine Unit #2 shall be less than 0.33 lbs/MMBtu when combusting distillate oil with a maximum heating value of 140,000 Btu/gal.
- (e) The distillate oil used in turbine Unit #2 shall be less than 10,608 thousand gallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to 245 tons per year of SO₂ emissions.

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to turbine Unit #2.

For the inlet fogging system for turbine Unit 2:

- (a) The Unit 2 inlet fogging system shall be used from the first of May to the end of September each year (i.e., the restricted period).
- (b) NO_x emissions from Unit #2 shall not exceed 61.3 tons per restricted period with compliance determined at the end of each month when the inlet fogging system is in use.
- (c) CO emissions from Unit #2 shall not exceed 131 tons per restricted period with compliance determined at the end of each month when the inlet fogging system is in use.
- (d) The distillate oil usage in turbine Unit #2 shall not exceed 1,753 thousand gallons (kgal) per restricted period with compliance determined at the end of each month while the inlet fogging system is in use. This is equivalent to 40.5 tons per year of SO₂ emissions.

Compliance with these limits ensures that the net emission increase from the installation of the fogging system in 2001 is less than 40 tons per year for NO_x and SO₂, and less than 100 tons per year for CO. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to the installation of the inlet fogging system with turbine Unit #2.

326 IAC 2-4.1 (Hazardous Air Pollutants)

This source was constructed before 1980 and modified in 1981 and 2001. The modification in 2001 did not have potential to emit HAPs greater than 10 tons per year for a single HAP or greater than 25 tons per year for total HAPs. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 1-5-2 (Emergency Reduction Plans)

The source submitted an Emergency Reduction Plan (ERP) on November 6, 2000.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to 326 IAC 2-6-3, the Permittee shall submit an emission statement triennially by July 1, starting in 2006. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6.

326 IAC 5-1 (Opacity Limitations)

This source is located in Vanderburgh County and is located in the city of Evansville. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for sources shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

326 IAC 6-4 (Fugitive Dust)

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).

State Rule Applicability – Turbine Unit #1

326 IAC 6.5-8 (Particulate Matter Limitations Except Lake County – Vanderburgh County)

This source is located in Vanderburgh and is specifically listed in 326 IAC 6.5-8-13 (formerly 326 IAC 6-1-16). Pursuant to 326 IAC 6.5-8-13(a) (formerly 326 IAC 6-1-16(a)), turbine Unit #1 shall burn only natural gas.

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

Since PM emissions from turbine Unit #1 are subject to the requirements of 326 IAC 6.5 (formerly 326 IAC 6-1 (Nonattainment Area Particulate Limitations)), and 326 IAC 6-1 remains in effect under 40 CFR 52, Subpart P, turbine Unit #1 is exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The potential to emit SO₂ from turbine Unit #1 is less than 25 tons per year. Therefore, the requirements of 326 IAC 7-1.1 are not applicable to this unit.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Turbine Unit #1 was constructed after January 1, 1980 and has potential VOC emissions less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to this unit.

326 IAC 10-4 (NOx Budget Trading Program)

Turbine Unit #1 commenced operation before January 1, 1997, has a maximum heat input capacity greater than 250 MMBtu/hr, served as a generator during 1995 or 1996 that had a nameplate capacity greater than 25 megawatts and produced electricity for sale under a firm contract to the electric grid. Therefore, turbine Unit #1 is considered a large electric generating unit (EGU) and a NOx budget unit. Therefore, the requirements of 326 IAC 10-4 (NOx Budget Trading Program) are applicable to this source. The NOx budget permit is included in Section E of this Part 70 permit. The Technical Support Document for the NOx budget permit is provided as Appendix B to this Technical Support Document.

State Rule Applicability – Turbine Unit #2

326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County)

This source is located in Vanderburgh. However, turbine Unit #2 is not specifically listed in 326 IAC 6.5-8-13 (formerly 326 IAC 6-1-16). The potential to emit PM of this source is greater than 100 tons per year. Therefore, the PM emissions from turbine Unit #2 are subject to the requirements of 326 IAC 6.5-1-2. Pursuant to 326 IAC 6.5-1-2(a) (formerly 326 IAC 6-1-2(a)), particulate matter (PM) for turbine Unit #2 shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf).

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

Since PM emissions from the turbine Unit #2 are subject to the requirements of 326 IAC 6.5 (formerly 326 IAC 6-1 (Nonattainment Area Particulate Limitations)), and 326 IAC 6-1 remains in

effect under 40 CFR 52, Subpart P, turbine Unit #1 is exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The potential to emit SO₂ from turbine Unit #2 is greater than 25 tons per year. Therefore, this unit is subject to the requirements of 326 IAC 7-1.1. Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from turbine Unit #2 shall not exceed 0.5 pounds per million Btu heat input, when combusting No. 1 or No. 2 fuel oils.

Pursuant to Construction Permit No. 6078 issued by the Evansville Environmental Protection Agency on May 21, 1980, and the Exemption from PSD Review letter issued by the Indiana Air Pollution Control Board on August 29, 1980, the Permittee shall comply with the following for turbine Unit #2:

- (a) The SO₂ emissions from turbine Unit #2 shall not exceed 0.33 lbs/MMBtu while combusting distillate fuel oil; and
- (b) Turbine Unit #2 shall burn either No. 1 or No. 2 fuel oil with a sulfur content of 0.3% or less, or natural gas.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Turbine Unit #2 has potential VOC emissions less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to this unit.

326 IAC 10-4 (NOx Budget Trading Program)

Turbine Unit #2 commenced operation before January 1, 1997, has a maximum heat input capacity greater than 250 MMBtu/hr, served as a generator during 1995 or 1996 that had a nameplate capacity greater than 25 megawatts and produced electricity for sale under a firm contract to the electric grid. Therefore, turbine Unit #2 is considered a large electric generating unit (EGU) and a NOx budget unit. Therefore, the requirements of 326 IAC 10-4 (NOx Budget Trading Program) are applicable to this source. The NOx budget permit is included in Section E of this Part 70 permit. The Technical Support Document for the NOx budget permit is provided as Appendix B to this Technical Support Document.

State Rule Applicability – Storage Tanks (Insignificant Activities)

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

This source is not located in Clark, Floyd, Lake, or Porter County. Therefore, the requirements of 326 IAC 8-9 are not applicable to the storage tanks at this source.

326 8-4-3 (Petroleum Liquid Storage Facilities)

The fuel oil storage tanks at this source have capacities greater than 39,000 gallons. However, these tanks are used to store No. 1 and No. 2 fuel oils which have true vapor pressures less than 1.52 psi. Therefore, the requirements of 326 IAC 8-4-3 are not applicable to these tanks, pursuant to 326 IAC 8-4-3(a).

State Rule Applicability – Degreasing Operation (Insignificant Activity)

326 IAC 8-3-2 (Cold Cleaning Operations)

The degreasing operation at this source was constructed before January 1, 1980. Therefore, the requirements of 326 IAC 8-3-2 (Cold Cleaning Operations) are not applicable to this operation.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasing operation at this source was constructed before July 1, 1990. Therefore, the requirements of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) are not applicable to this operation.

Testing Requirements

No stack testing is required for this source. The Permittee currently monitors actual NO_x and CO emission data using CEMs on each combustion turbine. The Permittee also keeps records on the fuel oil usage and the sulfur content of the fuel oil to demonstrate compliance with the SO₂ emission limitations.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

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

1. Turbine Unit #1 has applicable compliance monitoring conditions as specified below:
 - (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2, a continuous emission monitoring systems for turbine Unit #1 shall be calibrated, maintained, and operated to measure NO_x and CO, and meet all applicable performance specifications of 326 IAC 3-5-2.
 - (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
 - (c) Pursuant to 326 IAC 3-5-4, if revisions are made to the continuous monitoring standard operating procedures (SOP) by the Permittee, updates shall be submitted to the department biennially.
 - (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 or 326 IAC 10-4.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 10-4.

2. Turbine Unit #2 has applicable compliance monitoring conditions as specified below:
 - (a) Visible emissions notations of the turbine stack exhaust from stack #2 shall be performed once per day during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously Anormal® 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. 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. 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. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

- (b) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2 (PSD), a continuous monitoring system shall be calibrated, maintained, and operated to measure NOx and CO from turbine Unit #2, and meet all applicable performance specifications of 326 IAC 3-5-2.
- (c) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (d) Pursuant to 326 IAC 3-5-4, if revisions are made to the continuous monitoring standard operating procedures (SOP) by the Permittee, updates shall be submitted to the department biennially.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, or 40 CFR 60.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 10-4.

Conclusion

The operation of this stationary electric utility peaking station shall be subject to the conditions of this Part 70 Operating Permit Renewal T163-17636-00001.

**Appendix A: Emission Calculations
Emissions
From NG Combustion Turbine Unit #1**

**Company Name: Southern Indiana Gas and Electric Company -
Broadway Avenue Generating Station
Address: 2600 Broadway Ave., Evansville, IN 47712
TV Renewal #: T163-17636-00001
Reviewer: ERG/YC
Date: November 15, 2005**

Heat Input Capacity
MMBtu/hr

770

	Pollutant					
Emission Factor in lbs/MMBtu	PM 6.60E-03	PM10 6.60E-03	SO ₂ 3.40E-03	NO _x 0.545*	VOC 2.10E-03	CO 0.084*
Potential to Emit (tons/yr)	22.3	22.3	11.5	250*	7.08	250*

* These are the PSD minor conditions included in T163-6899-00001, issued on 02/10/99 and will be included in this TV renewal also.
Emission factors for PM10, SO₂, and VOC are from AP-42, Chapter 3.1, Table 3.1-2 (AP-42 04/00).
Assume PM10 emission factor is equal to PM emission factor.

Methodology

PTE of PM10, SO₂, and VOC (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs

**Appendix A: Emission Calculations
HAP Emissions
From NG Combustion Turbine Unit #1**

**Company Name: Southern Indiana Gas and Electric Company -
Broadway Avenue Generating Station
Address: 2600 Broadway Ave., Evansville, IN 47712
TV Renewal #: T163-17636-00001
Reviewer: ERG/YC
Date: November 15, 2005**

Heat Input Capacity
MMBtu/hr

770

Emission Factor in lbs/MMBtu	Pollutant					Total HAP
	Formaldehyde	Toluene	Xylene	Acetaldehyde	Ethylbenzene	
	7.10E-04	1.30E-04	6.40E-05	4.00E-05	3.20E-05	
Potential to Emit (tons/yr)	2.39	0.44	0.22	0.13	0.11	3.29

Emission factors are from AP-42, Table 3.1-3 for NG fired gas turbines (AP-42, 04/00).

Methodology

PTE (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs

**Appendix A: Emission Calculations
Emissions
From NG/Fuel Oil Combustion Turbine Unit #2**

**Company Name: Southern Indiana Gas and Electric Company -
Broadway Avenue Generating Station
Address: 2600 Broadway Ave., Evansville, IN 47712
TV Renewal #: T163-17636-00001
Reviewer: ERG/YC
Date: November 15, 2005**

1. PTE for Unit #2 while Combusting Natural Gas:

Heat Input Capacity
MMBtu/hr

900

Emission Factor in lbs/MMBtu	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
	6.60E-03	6.60E-03	3.40E-03	0.21*	2.10E-03	0.084*
Potential to Emit (tons/yr)	26.0	26.0	13.4	250*	8.28	250*

* These are the PSD minor conditions included in T163-6899-00001, issued on 02/10/99 and will be included in this TV renewal also.
Emission factors for PM, PM10, SO₂, and VOC are from AP-42, Chapter 3.1, Table 3.1-2a (AP-42 04/00).
Assume PM10 emission factor is equal to PM emission factor.

Methodology

PTE of PM, PM10, SO₂, and VOC (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs

2. PTE of Unit #2 while Combusting No. 1 and No. 2 Fuel Oils:

Heat Input Capacity
MMBtu/hr

900

Distillate Oil Usage Limit
kgal/yr

10,608

Emission Factor in lbs/MMBtu	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
	1.20E-02	1.20E-02	0.33*	0.21*	4.10E-04	0.084*
Potential to Emit (tons/yr)	47.3	47.3	245	250*	1.62	250*

* These are the PSD minor conditions included in T163-6899-00001, issued on 02/10/99 and will be included in this TV renewal also.
Emission factors for PM, PM10, and VOC are from AP-42, Chapter 3.1, Table 3.1-2 (AP-42 04/00).
Assume PM10 emission factor is equal to PM emission factor.

Methodology

PTE of PM, PM10, and VOC (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs
PTE of SO₂ (tons/yr) = Distillate Oil Usage Limit (kgal/yr) x 140 MMBtu/kgal x Emission Factor (lbs/MMBtu) x 1 ton/2000 lbs

3. PTE of Unit #2 (Worst Case Scenario):

	PM	PM10	SO ₂	NO _x	VOC	CO
Potential to Emit (tons/yr)*	47.3	47.3	245	250	8.28	250

* PTE of this unit is the worst case scenario between combusting NG and combusting fuel oil.

**Appendix A: Emission Calculations
HAP Emissions
From NG/Fuel Oil Combustion Turbine Unit #2**

**Company Name: Southern Indiana Gas and Electric Company -
Broadway Avenue Generating Station
Address: 2600 Broadway Ave., Evansville, IN 47712
TV Renewal #: T163-17636-00001
Reviewer: ERG/YC
Date: November 15, 2005**

1. PTE of HAPs while Combusting Natural Gas:

Heat Input Capacity
MMBtu/hr

900

Emission Factor in lbs/MMBtu	Pollutant					Total HAP
	Formaldehyde 7.10E-04	Toluene 1.30E-04	Xylene 6.40E-05	Acetaldehyde 4.00E-05	Ethylbenzene 3.20E-05	
Potential to Emit (tons/yr)	2.80	0.51	0.25	0.16	0.13	3.85

Emission factors are from AP-42, Table 3.1-3 for NG fired gas turbines (AP-42, 04/00).

Methodology

PTE (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs

2. PTE of HAPs while Combusting No. 1 and No. 2 Fuel Oils:

Heat Input Capacity
MMBtu/hr

900

Emission Factor in lbs/MMBtu	Pollutant					Total HAP
	Formaldehyde 2.80E-04	Benzene 5.50E-05	PAH 4.00E-05	Naphthalene 3.50E-05	Manganese 7.90E-04	
Potential to Emit (tons/yr)	1.10	0.22	0.16	0.14	3.11	4.73

Emission factors are from AP-42, Table 3.1-4 and Table 3.1-5 for distillate oil fired gas turbines (AP-42, 04/00).

Methodology

PTE (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2000 lbs