



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: May 23, 2008

RE: Sisters of the Holy Cross, Inc. / 141-23831-00009

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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**Federally Enforceable State Operating Permit
Renewal
OFFICE OF AIR QUALITY**

**Sisters of the Holy Cross, Inc.
(formerly Holy Cross Services Corporation (Saint Mary's Campus))
St. Mary's Campus
Notre Dame, Indiana 46556**

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

Operation Permit No.: F141-23831-00009	
Issued by: Original signed by Matthew Stuckey for: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: May 23, 2008 Expiration Date: May 23, 2018

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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 2-8-3(b)]

The Permittee owns and operates a stationary power plant, which has a total maximum heat input capacity of less than 250 MMBtu/hr and is used to supply power to St. Mary's College.

Source Address:	St. Mary's Campus, Notre Dame, Indiana 46556
Mailing Address:	St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
General Source Phone Number:	574-284-4321
SIC Code:	8221
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD 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 2-8-3(c)(3)]

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

- (a) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #1, NEDS Plant ID03, Point Input ID56P, with maximum heat input capacity of 31.5 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stacks, S-B-1.
- (b) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #2, NEDS Plant ID01, Point Input ID54P, with maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stack S-B-2.
- (c) One (1) natural gas-fired boiler, identified as Boiler #3, NEDS Plant ID02, Point Input ID55P, with a maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, constructed in 1964, and exhausting to stack S-B-3.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, consisting of the following direct heating unit:

Quickwater direct fire natural gas water heater, maximum heat input capacity of 3,500 BTU/hr, installed December 2006.

- (c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (d) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (f) The VOC and HAP storage containers, including the following:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (g) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa (15mm Hg, 0.3 psi) measured at 38 degrees C (100°F) or having a vapor pressure equal to or less than 0.7 kPa (5mm Hg, 0.1 psi) measured at 20°C (68°F) and the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (h) Closed loop heating and cooling systems.
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (j) Noncontact cooling tower systems with either natural draft cooling towers not regulated under a NESHAP, or forced and induced draft cooling tower system not regulated under a NESHAP.
- (k) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (m) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.
- (n) On-site fire and emergency response training approved by the department.
- (o) Stationary fire pumps.
- (p) Other emission units, not regulated by a NESHAP, with PM10 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, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (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:

One (1) No. 2 fuel oil storage tank, with a maximum capacity of 15,000 gallons and constructed in 2002.

(q) Emergency generator for #6 well, diesel, 8.9 liters, 364 hp, installed January 2007.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F141-23831-00009, is issued for a fixed term of ten (10) 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, 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, 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 2-8-6]

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

B.5 Severability [326 IAC 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (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 an "authorized individual" 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern 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

Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) 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.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

- (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

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

- (a) All terms and conditions of permits established prior to F141-23831-00009 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
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- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) 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 approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) 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.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may

open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

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

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

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

C.6 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.

C.7 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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.8 Performance Testing [326 IAC 3-6]

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 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 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

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

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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.

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [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 2-8-4] [326 IAC 2-8-5]

- (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; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall 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 2-8-4][326 IAC 2-8-5]

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

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (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.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.

Stratospheric Ozone Protection

C.18 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]

- (a) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #1, NEDS Plant ID03, Point Input ID56P, with maximum heat input capacity of 31.5 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stack, S-B-1.
- (b) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #2, NEDS Plant ID01, Point Input ID54P, with maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stack S-B-2.
- (c) One (1) natural gas-fired boiler, identified as Boiler #3, NEDS Plant ID02, Point Input ID55P, with a maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, constructed in 1964, and exhausting to stack S-B-3.

(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 2-8-4(1)]

D.1.1 FESOP [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP):

- (a) The No.2 fuel oil usage for Boiler #1 (NEDS Plant ID03, Point Input ID56P) shall be limited to 704,225 gallons per twelve (12) consecutive month period with compliance determined at the end of the month. This limit is equivalent to SO₂ emissions of 25 tons per year.
- (b) The No.2 fuel oil usage for Boiler #2 (NEDS Plant ID01, Point Input ID54P) shall be limited to 704,225 gallons per twelve (12) consecutive month period with compliance determined at the end of the month. This limit is equivalent to SO₂ emissions of 25 tons per year.

Combined with the SO₂ emissions from natural gas combustion, the SO₂ emissions from the entire source is limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 are not applicable. In addition, compliance with these limits also makes the source-wide PM10 emissions less than 100 tons per year. Compliance with these limits renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6.5-7-13]

Pursuant to 326 IAC 6.5-7-13(a) (Sisters of the Holy Cross, Inc., formerly Holy Cross Services Corporation (St. Mary's Campus):

- (a) The particulate matter (PM) emissions from Boiler #1 (NEDS Plant ID03, Point Input ID56P) shall not exceed 0.014 pounds per MMBtu heat input and 3.9 tons of PM emissions per year.
- (b) The particulate matter (PM) emissions from Boiler #2 (NEDS Plant ID01, Point Input ID54P) shall not exceed 0.014 pounds per MMBtu heat input and 3.9 tons of PM emissions per year.

- (c) Pursuant to 326 IAC 6.5-7-13(b), Boiler #3 (NEDS Plant ID02, Point Input ID55P) shall burn natural gas only.

Compliance with these limits also renders 326 IAC 2-2 not applicable.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 -2 (SO₂ Emissions Limitations), the SO₂ emissions from Boilers #1 and #2 shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.5 Sulfur Dioxide (SO₂) Emissions

Compliance with Condition D.1.1 (a) shall be determined within 30 days of the end of each month based on the total No. 2 fuel usage for the most recent twelve (12) consecutive month period.

D.1.6 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3-7-4] [326 IAC 3-6]

Compliance with Conditions D.1.1 and D.1.3 shall be determined utilizing one of the following options.

- (1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (A) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
 - (B) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (i) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (ii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boilers #1 and #2, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.7 Visible Emissions Notations

- (a) Daily visible emission notations of the stack exhausts of Boilers #1 and #2 shall be performed during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

- (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 Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.8 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1(a) and D.1.3, 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 established in Conditions D.1.1(a) and D.1.3.
 - (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) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period. The natural gas fired boiler certification does require the certification by the authorized individual as defined by 326 IAC 2-1.1-1(1); and

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

 - (4) Fuel supplier certifications;
 - (5) The name of the fuel supplier; and
 - (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of each boiler stack exhaust while combusting fuel oil. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(a) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an authorized individual as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(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 2-8-4(1)]

D.2.1 Particulate Emission Limitations, For Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate matter emission rate from the following: brazing equipment, cutting torches, soldering equipment, welding equipment with maximum process weight rates less than 100 pounds per hour shall not exceed 0.551 pounds per hour:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL
CERTIFICATION**

Source Name: Sisters of the Holy Cross, Inc.
Source Address: St. Mary's Campus, Notre Dame, Indiana 46556
Mailing Address: St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
FESOP Permit No.: F141-23831-00009

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:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL
EMERGENCY OCCURRENCE REPORT**

Source Name: Sisters of the Holy Cross, Inc.
Source Address: St. Mary's Campus, Notre Dame, Indiana 46556
Mailing Address: St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
FESOP Permit No.: F141-23831-00009

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Sisters of the Holy Cross, Inc.
 Source Address: St. Mary's Campus, Notre Dame, Indiana 46556
 Mailing Address: St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
 FESOP Permit No.: F141-23831-00009
 Facility: Boiler #1
 Parameter: No. 2 fuel oil usage
 Limit: Less than 704,225 gallons per twelve (12) consecutive month period

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**

FESOP Quarterly Report

Source Name: Sisters of the Holy Cross, Inc.
 Source Address: St. Mary's Campus, Notre Dame, Indiana 46556
 Mailing Address: St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
 FESOP Permit No.: F141-23831-00009
 Facility: Boiler #2
 Parameter: No. 2 fuel oil usage
 Limit: Less than 704,225 gallons per twelve (12) consecutive month period

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
 FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Sisters of the Holy Cross, Inc.
 Source Address: St. Mary's Campus, Notre Dame, Indiana 46556
 Mailing Address: St. Mary's Campus, Lourdes Hall, Notre Dame, Indiana 46556
 FESOP Permit No.: F141-23831-00009

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

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ∆No deviations occurred this reporting period@.</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
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

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: Sisters of the Holy Cross, Inc. (formerly Holy Cross Services Corporation (Saint Mary's Campus))
Source Location: St. Mary=s Campus, Notre Dame, Indiana 46556
County: St. Joseph
SIC Code: 8221
Permit Renewal No.: F141-23831-00009
Permit Reviewer: Janet Mobley

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Sisters of the Holy Cross, Inc. (formerly Holy Cross Services Corporation (Saint Mary's Campus)) for the operation of a stationary power plant that supplies power to St. Mary's College.

History

A Federally Enforceable State Operating Permit (FESOP) F141-15885-00009 was issued to this source on July 29, 2002.

On October 27, 2006, Holy Cross Services Corporation submitted an application to the OAQ requesting to renew their operating permit FESOP (F141-15885-00009) that was issued on July 29, 2002, and a request to correct boiler descriptions to reflect the requirements of 326 IAC 6.5-7-13 and the actual operations of the facility. The boilers that were modified should have been designated as Boiler #1 and #2. Boiler #3 only burns natural gas.

On November 29, 2006, Holy Cross Services Corporation notified the OAQ that their operating name changed to Sisters of the Holy Cross, Inc., effective November 2, 2006. On September 28, 2007, a rule revision to 326 IAC 6.5-7-13 became effective to correct the source identification to Holy Cross Services Corporation (Saint Mary's Campus) not Saint Mary's as was previously listed in the rule.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #1, NEDS Plant ID03, Point Input ID56P, with maximum heat input capacity of 31.5 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stack, S-B-1.
- (b) One (1) natural gas-fired boiler with No.2 fuel oil as a back-up fuel, identified as Boiler #2, NEDS Plant ID01, Point Input ID54P, with maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, equipped with low NOx burner, constructed in 1964, and exhausting to stack S-B-2.

- (c) One (1) natural gas-fired boiler, identified as Boiler #3, NEDS Plant ID02, Point Input ID55P, with a maximum heat input capacity of 63 million British thermal units (MMBtu) per hour, constructed in 1964, and exhausting to stack S-B-3.

Insignificant Activities

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, consisting of the following direct heating unit:
 - Quickwater direct fire natural gas water heater, maximum heat input capacity of 3,500 BTU/hr, installed December 2006.
- (c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (d) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
- (e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (f) The VOC and HAP storage containers, including the following:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (g) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa (15mm Hg, 0.3 psi) measured at 38 degrees C (100°F) or having a vapor pressure equal to or less than 0.7 kPa (5mm Hg, 0.1 psi) measured at 20°C (68°F) and the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (h) Closed loop heating and cooling systems.
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (j) Noncontact cooling tower systems with either natural draft cooling towers not regulated under a NESHAP, or forced and induced draft cooling tower system not regulated under a NESHAP.
- (k) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

- (m) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.
- (n) On-site fire and emergency response training approved by the department.
- (o) Stationary fire pumps.
- (p) Other emission units, not regulated by a NESHAP, with PM10 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, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (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:

One (1) No. 2 fuel oil storage tank, with a maximum capacity of 15,000 gallons and constructed in 2002.
- (q) Emergency generator for #6 well, diesel, 8.9 liter, 364 horsepower, installed January 2007.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

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

Existing Approvals

The source has been operating under previous approvals including, but not limited to the following:

- (a) FESOP No. 141-15885-00009, issued on July 29, 2002;
- (b) Administrative Amendment No. 141-17406-00009, issued on March 12, 2004; and
- (c) Administrative Amendment No.: 141-19894-00009, issued on January 26, 2005.

All conditions from previous approvals were incorporated into this FESOP except the following:

Applicability thresholds for 40 CFR 60, Subpart Kb have been revised. Storage tanks with a capacity less than seventy-five (75) cubic meters are no longer subject to the requirements of 40 CFR 60, Subpart Kb.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 - 5).

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM 2.5	

- (a) St. Joseph County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) Ozone Standards
- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
 - (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
 - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO₂ is equal to or greater than 100 tons per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to limit their SO₂ emissions to less than Title V levels, therefore the source will be issued a FESOP.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, VOC, CO, and NO_x are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, because the total capacity of the plant is than 250 MMBtu per hour, fugitive emissions are not counted toward the determination of Part 70 applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 (latest available) OAQ emission data. The 2002 data indicates that SO₂ emissions were above the 100 tons per year limit for a FESOP, but the FESOP was not issued until July 29th of 2002, prior to that date the source was a Title V source.

Pollutant	Actual Emissions (tons/year)
PM	1
PM-10	1
SO ₂	108
VOC	0
CO	12
NO _x	15
Pb	0.00

Potential to Emit After Issuance

The source has opted to remain a FESOP source. 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 this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Limited Potential to Emit (tons/year)						
	PM	PM-10*	SO ₂	VOC	CO	NO _x	HAPs
Boiler #1	3.9**	1.16**	<25.0**	0.12	1.76	7.04	Negligible
Boiler #2	3.9**	1.16**	<25.0**	0.12	1.76	7.04	Negligible
Boiler #3	2.10	2.10	0.17	1.52	23.18	27.59	Negligible
Insignificant Activities***	10.0	10.00	10.00	10.00	10.00	10.00	Negligible
Total Emissions	19.90	14.42	60.17	11.76	36.70	51.67	Negligible
Part 70 Levels	--	100	100	100	100	100	Single < 10 Total < 25
PSD Major	250	250	250	250	250	250	--

- * Under the Part 70 Permit Program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
- ** Refer to the State Applicability Determination of this TSD for the limit. [326 IAC 6.5-7-13]
- *** PTE was not determined for each insignificant activity. This was assumed to accommodate future construction of insignificant activities.

The source is considerably below the 100 tons per year limit because the source has limited themselves to <25 tons per year of SO₂ for Boiler #1 and #2 to allow for flexibility to add additional insignificant units.

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not included in this permit. This source is operating as a FESOP. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this source.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (c) Boilers #1 and #2 are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c-48c, Subpart Dc), because both boilers were constructed before June 9, 1989. The conversion from coal fired boilers to natural gas fired boilers with No. 2 fuel oil as back-up fuel in 2002 has not increased the maximum hourly emissions of any regulated pollutant above the maximum hourly emissions

achievable at these boilers during the 5 years prior to the fuel conversion. Based on the definition in 40 CFR 60.14(h) and 40 CFR 60.15, this fuel conversion project was not considered to be a **Modification** or a **Reconstruction**.

- (d) The fuel oil storage tanks each have capacities less than 40 cubic meters (10,560 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are not applicable to this source.
- (e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) included in the permit for this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source is not 1 of 28 source categories defined in 326 IAC 2-2-1(y)(1) because the total capacity of the power plant is less than 250 MMBtu/hr. In this permit, the potential to emit SO₂ will be limited to less than 100 tons per year. The potential to emit all other regulated pollutants without control is less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable.

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

The source has not constructed or reconstructed a major source of hazardous air pollutants (HAPs), as defined in 40 CFR 63.4, after July 27, 1997. Therefore the requirements of 326 IAC 2-4.1 do not apply.

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

The potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, the requirements do not apply to this source.

326 IAC 2-8 (FESOP)

Pursuant to 326 IAC 2-8 (FESOP), the Permittee shall be subject to the following limitations, as requested by the source and approved by IDEM, OAQ.

The source has requested to maintain the limit of the No.2 fuel oil usage for each of the Boilers #1 and #2 to less than 704,225 gallons per twelve (12) consecutive month period. This limit was established in the initial FESOP (F141-15885-00009) issued to the source on July 29, 2002. This will limit SO₂ emissions to less than 25 tons per year per boiler (See Appendix A). Combined with the emissions from the natural gas combustion, the SO₂ emissions from the entire source is less than 100 tons per year. Combined with the PM10 emissions from insignificant activities, the PM10 emissions from the entire source are limited to less than 100 tons per year. The source will burn natural gas or No. 2 fuel oil in Boilers #1 and #2 and only natural gas in Boiler #3 to ensure compliance with these limits. Therefore, the requirements of 326 IAC 2-7 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County and is not required to have an operating permit under 326 IAC 2-7 (Part 70 Permit Program). Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes 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.

326 IAC 8-1-6 (Volatile Organic Compounds: New Facilities: BACT)

The facilities at this source were constructed prior to January 1, 1980, and no new facilities have been added since that time. Therefore, the requirements of 326 IAC 8-1-6 do not apply to any of the facilities at this source.

326 IAC 8-4 (Petroleum Sources)

This source is located in St. Joseph County, was constructed prior to January 1, 1980, and is not one of the types of operations regulated by 326 IAC 8-4. Therefore, the requirements of 326 IAC 8-4 do not apply to any of the facilities at this source.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

The facilities at this source commenced operation before March 21, 1972. Therefore, the requirements of 326 IAC 9-1 do not apply to any of the facilities at this source.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

This source is located in St. Joseph County. Therefore, the requirements of 326 IAC 10-1 do not apply to any of the facilities at this source.

State Rule Applicability - Boilers

326 IAC 2-4.1 (Hazardous Air Pollutants)

This source is not subject to the requirements of 326 IAC 2-4.1 (Hazardous Air Pollutants) because this facility does not have the potential to emit greater than 10 tons per year of a single HAP or 25 tons per year of any combination of HAPs.

326 IAC 6.5-7-13 Sisters of the Holy Cross, Inc. (formerly Holy Cross Services Corporation (Saint Mary's Campus))

Sisters of the Holy Cross, Inc. is located in St. Joseph County and it is specifically permitted under 326 IAC 6.5-7-13.

- (a) Pursuant to 326 IAC 6.5-7-13(a) the particulate matter (PM) emissions from Boiler #1 (NEDS Plant ID03, Point Input ID56P) shall not exceed 0.014 pounds per MMBtu heat input and 3.9 tons of PM emissions per year.
- (b) Pursuant to 326 IAC 6.5-7-13(a) the particulate matter (PM) emissions from Boiler #2 (Boiler #2, NEDS Plant ID01, Point Input ID54P) shall not exceed 0.014 pounds per MMBtu heat input and 3.9 tons of PM emissions per year.
- (c) Pursuant to 326 IAC 6.5-7-13(b), Boiler #3 (NEDS Plant ID02, Point Input ID55P) shall burn natural gas only.

Based on the emission calculations in Appendix A, PM emissions from each boiler will be in compliance with 326 IAC 6.5-7-13. Also, compliance with these limits render 326 IAC 2-7 not applicable.

326 IAC 7-1.1-2 (SO₂ Emission Limitations)

The potential emissions of SO₂ from Boilers #1 and #2 are equal to or greater than 25 tons per year. Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from each of the boilers #1 and #2 shall be limited to 0.5 pounds per million Btu heat input, when burning No. 2 fuel oil.

State Rule Applicability - Insignificant Activities

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

Pursuant to 326 IAC 6-3-2(e), the allowable particulate matter emission rate from the brazing equipment, cutting torches, soldering equipment, welding equipment with maximum process weight rates less than 100 pounds per hour shall not exceed 0.551 pounds per hour:

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

The fuel oil storage tanks have capacities less than 39,000 gallons. Therefore, 326 IAC 8-4-3 does not apply to these tanks.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

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

1. Boilers #1 and #2 have applicable compliance monitoring conditions as specified below:

Daily visible emissions notations of stack exhausts (from boilers #1 and #2) shall be performed during normal daylight operations while the boilers are burning No.2 fuel oil. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously a 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. 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.

These monitoring conditions are necessary to ensure the boilers are operating properly and to ensure compliance with 326 IAC 6.5-7-13 Sisters of the Holy Cross, Inc. (formerly Holy Cross Services Corporation (Saint Mary's Campus)).

No stack testing is required for the boilers because of compliance with the SO₂ emission limits will be demonstrated by keeping records of the usage and sulfur content of the fuel oil.

- (1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (A) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
 - (B) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (i) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (ii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boilers #1 and #2, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Recommendation

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

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

An application for the purposes of this review was received on October 27, 2006, and additional information was received on November 29, 2006.

Conclusion

The operation of this power plant shall be subject to the conditions of the attached FESOP Renewal No.: F141-23831-00009.

Appendix A: Emission Summary **Page 1 of 5 TSD App A**
Company Name: Sisters of the Holy Cross, Inc.
Address City IN Zip: Saint Mary's Campus, Notre Dame, IN 46556
Permit No: F141-23831-00009
Reviewer: Janet Mobley
Date: November 16, 2006

Uncontrolled Emissions

Emission Units	PM	PM10	SO2	VOC	CO	NOx	HAPs
Boiler #1	3.25	3.25	69.97	0.76	11.59	19.71	Negligible
Boiler #2	6.50	6.50	139.94	1.52	23.18	39.42	Negligible
Boiler #3	2.10	2.10	0.17	1.52	23.18	27.59	Negligible
Insignificant Activities	10.00	10.00	10.00	10.00	10.00	10.00	Negligible
Total	21.85	21.85	220.08	13.80	67.95	96.72	Negligible

Limited Emissions

Emission Units	PM	PM10	SO2	VOC	CO	NOx	HAPs
Boiler #1	1.84	1.84	25.05	0.76	11.59	15.91	Negligible
Boiler #2	2.88	2.88	25.14	1.52	23.18	29.71	Negligible
Boiler #3	2.10	2.10	0.17	1.52	23.18	27.59	Negligible
Insignificant Activities	10.00	10.00	10.00	10.00	10.00	10.00	Negligible
Total	16.82	16.82	60.36	13.79	67.95	83.21	Negligible

For VOC & CO, the EF for NG is higher than for FO #2. The worst case scenario is combusting NG 8760 hrs/yr.

For PM, PM10, SO2, & NOx, the EF for FO#2 is higher than for NG. The worst case scenario is that FO #2 will be burned for the maximum number of hours allowed under the limit and NG will be burned for the remainder of the year.

In the worst case scenario, the number of hours that FO#2 will be burned are as follows:

Boiler #1: $704,250 \text{ gal FO \#2/yr} * 0.14 \text{ MMBtu/gal} * 1 \text{ hr} / 31.5 \text{ MMBtu} = 3130 \text{ hrs burning FO \#2}$
 $8760 \text{ hrs/yr} - 3130 \text{ hrs burning FO \#2} = 5630 \text{ hrs burning NG}$
 Boiler #2: $704,250 \text{ gal FO \#2/yr} * 0.14 \text{ MMBtu/gal} * 1 \text{ hr} / 63 \text{ MMBtu} = 1565 \text{ hrs burning FO \#2}$
 $8760 \text{ hrs/yr} - 1565 \text{ hrs burning FO \#2} = 7195 \text{ hrs burning NG}$

**Appendix A: Emission Calculations
From Boiler #1 (31.5 MMBtu/hr)**

**Company Name: Sisters of the Holy Cross, Inc.
Address City IN Zip: St. Mary's Campus, Notre Dame, IN 46556
FESOP No.: F141-23831-00009
Reviewer: Janet Mobley
Date: November 16, 2006**

1. Potential Emissions While Burning Natural Gas:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
31.5	275.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	**CO
	7.6	7.6	0.6	100	5.5	84
Potential Emission in tons/yr	1.05	1.05	0.08	13.80	0.76	11.59

*PM and PM10 emission factors are condensable and filterable PM10 combined.

**Emission Factors for NO_x: uncontrolled = 100.

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

2. Potential Emissions While Burning Back-up No. 2 Fuel Oil:

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
31.5	1971.0	0.5

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	3.3	3.3	71 (142.0 S)	20.0	0.34	5.0
Potential Emission in tons/yr	3.25	3.25	69.97	19.71	0.34	4.93

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

3. Total Potential Emissions from Boiler #1:

Pollutant	PM	PM10	SO ₂	NO _x	VOC	CO
*Potential Emission (tons/yr)	3.25	3.25	69.97	19.71	0.76	11.59

*Potential emissions from the combustion are determined by the worst case situation between burning natural gas or No.2 fuel oil.

**Appendix A: Emission Calculations
From Boiler #2 (63 MMBtu/hr)**

**Company Name: Sisters of the Holy Cross, Inc.
Address City IN Zip: St. Mary's Campus, Notre Dame, IN 46556
FESOP No.: F141-23831-00009
Reviewer: Janet Mobley
Date: November 16, 2006**

1. Potential Emissions While Burning Natural Gas:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
63.0	551.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	**CO
	7.6	7.6	0.6	100	5.5	84
Potential Emission in tons/yr	2.10	2.10	0.17	27.59	1.52	23.18

*PM and PM10 emission factors are condensable and filterable PM10 combined.
**Emission Factors for NO_x: uncontrolled = 100.

Methodology

All Emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

2. Potential Emissions While Burning Back-up No. 2 Fuel Oil:

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
63.0	3942.0	0.5

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	3.3	3.3	71 (142.0 S)	20.0	0.34	5.0
Potential Emission in tons/yr	6.50	6.50	139.94	39.42	0.67	9.86

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)
Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

3. Total Potential Emissions from Boiler #2:

Pollutant	PM	PM10	SO ₂	NO _x	VOC	CO
*Potential Emission (tons/yr)	6.50	6.50	139.94	39.42	1.52	23.18

*Potential emissions from the combustion are determined by the worst case situation between burning natural gas or No.2 fuel oil.

Appendix A: Emission Calculations
Commercial/Institutional/Residential Combustors (< 100 MMBtu/hr)
#2 Fuel Oil
From Boilers #1 and #2 with Fuel Usage Limits

Company Name: Sisters of the Holy Cross, Inc.
Address City IN Zip: St. Mary's Campus, Notre Dame, IN 46556
FESOP No.: F141-23831-00009
Reviewer: Janet Mobley
Date: November 16, 2006

1. From Boiler #1 while using back-up fuel (No.2 fuel oil):

Heat Input Capacity MMBtu/hr	Throughput Limit kgals/year	S = Weight % Sulfur <input type="text" value="0.5"/>
<input type="text" value="31.5"/>	<input type="text" value="704.25"/>	

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	3.3	3.3	71 (142.0 S)	20.0	0.34	5.0
Potential Emission in tons/yr	1.16	1.16	25.00	7.04	0.12	1.76

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)
 Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

2. From Boiler #2 while using back-up fuel (No.2 fuel oil):

Heat Input Capacity MMBtu/hr	Throughput Limit kgals/year	S = Weight % Sulfur <input type="text" value="0.5"/>
<input type="text" value="63.0"/>	<input type="text" value="704.25"/>	

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	3.3	3.3	71 (142.0 S)	20.0	0.34	5.0
Potential Emission in tons/yr	1.16	1.16	25.00	7.04	0.12	1.76

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)
 Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Appendix A: Emission Calculations
Natural Gas Combustion
(MMBtu/hr < 100)
From Boiler #3 (63 MMBtu/hr)**

**Company Name: Sisters of the Holy Cross, Inc.
Address City IN Zip: St. Mary's Campus, Notre Dame, IN 46556
FESOP No.: F141-23831-00009
Reviewer: Janet Mobley
Date: November 16, 2006**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

63.0

551.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
Potential Emission in tons/yr	2.10	2.10	0.17	27.59	1.52	23.18

*PM and PM10 emission factors are condensable and filterable PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton