



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: February 9, 2007
RE: Elkhart General Hospital / 039-23587-00118
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted 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, Room 1049, 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.dot 03/23/06



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100 North Senate Avenue
Indianapolis, Indiana 46204-2251
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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Elkhart General Hospital
600 East Blvd.
Elkhart, Indiana 46515**

(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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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 MSOP under 326 IAC 2-6.1.

| | |
|--|--|
| Operation Permit No.: M039-23587-00118 | |
| Issued by: <i>Original document signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality | Issuance Date: February 9, 2007 Expiration Date: February 9, 2012 |

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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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary general medical hospital.

| | |
|------------------------------|---|
| Authorized Individual: | Director of Engineering Services |
| Source Address: | 600 East Blvd., Elkhart, Indiana 46515 |
| Mailing Address: | 600 East. Blvd., Elkhart, Indiana 46515 |
| General Source Phone Number: | 574-523-3141 |
| SIC Code: | 8062 |
| County Location: | Elkhart |
| Source Location Status: | Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants |
| Source Status: | Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Three (3) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.1%), identified as B-1, B-2 and B-3, constructed in 1971, each with a maximum heat input rate of 24.4 million (MM) British thermal units (Btu) per hour, all exhausting to one (1) stack, identified as B-1;
- (b) One (1) natural gas-fired generator, constructed in 1991, with a maximum heat input rate of 7.31 MMBtu/hr, exhausting to one (1) stack, identified as G-2;
- (c) Emergency generators as follows:
 - (1) One (1) emergency generator, identified as G-1, rated at 804 HP, using diesel;
 - (2) One (1) emergency generator, identified as G-3, rated at 940 HP, using diesel;
 - (3) One (1) emergency generator, identified as G-4, rated at 1005 HP, using fuel oil;
 - (4) One (1) emergency generator, identified as G-5, rated at 235 HP, using fuel oil;
 - (5) Three (3) No.2 fuel oil fired emergency generators, identified as M1, M2 and M3, each constructed in 2004, each with a maximum rated capacity of 1,481 horse power, and exhausting to stack/vents S-M1, S-M2 and S-M3, respectively;
- (d) One (1) 3M sterivac 5XL ethylene oxide sterilizer, identified as E-1, constructed in 1990;
- (e) One (1) 12,000 gallon under ground diesel storage tank, identified as T-1 and constructed in 1971; and
- (f) One (1) No. 2 fuel oil storage tank, identified as Main-1, constructed in 2004 with a maximum capacity of 10,000 gallons.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M039-23587-00118, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, 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

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

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

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

B.7 Duty to Provide Information

- (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

- (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 Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
Indianapolis, IN 46204-2251
- (c) The notification 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.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (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.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M039-23587-00118 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.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. 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
Indianapolis, Indiana 46204-2251

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

(1) Submitted at least ninety (90) days 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 2-6.1 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.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

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

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

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][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 permitted 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.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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 notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [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.

- (b) 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.19 Credible Evidence [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 2-6.1-5(a)(1)]

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

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

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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.6 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.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
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 Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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.10 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 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.13 Instrument Specifications [326 IAC 2-1.1-11]

- (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

C.14 Response to Excursions or Exceedances

- (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

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

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

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (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.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (b) 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.
- (c) 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).
- (d) 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.
- (e) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for information from the IDEM, OAQ under 326 IAC 17.1.

SECTION D.1 Emissions unit OPERATION CONDITIONS

Emissions Unit Description [326 IAC 6-2-3] [326 IAC 7-1.1-1]

- (a) Three (3) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.1%), identified as B-1, B-2 and B-3, constructed in 1971, each with a maximum heat input rate of 24.4 million (MM) British thermal units (Btu) per hour, all exhausting to one (1) stack, identified as B-1.

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

Emission Limitations and Standards

D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from the three (3) natural gas-fired boilers used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (SO₂ Emissions Limitations): sulfur dioxide emissions from the three (3) boilers using No. 2 fuel oil shall be limited to 0.5 pounds per million BTU heat input when using No. 2 fuel oil. This equates to a fuel oil sulfur content limit of less than or equal to 0.5%.

Compliance Determination Requirements

D.1.3 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-3-4, the Permittee shall demonstrate that the No. 2 distillate fuel oil sulfur content does not exceed 0.5% by weight by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the two (2) boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-2.1.

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

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack (B-1) exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere and while

combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

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

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent usage per month since last compliance determination period and equivalent SO₂ 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; and

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

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

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of the daily visible emission notations of the boiler stack (B-1) exhaust.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

- (a) A certification, signed by the authorized official that certifies all of the fuels 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;

- (b) The natural gas boiler certification shall be submitted to the address 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 six (6) month period being reported.
- (c) The Permittee shall submit reports of calendar month average sulfur content, heat content, fuel consumption and sulfur dioxide emission rate (pounds SO₂ per MMBtu), to the OAQ upon request.

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

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Elkhart General Hospital
Source Address: 600 East Blvd., Elkhart, IN 46515
Mailing Address: 600 East Blvd., Elkhart, IN 46515
MSOP Permit No.: 039-23587-00118

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 Notification
- 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**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

| | |
|----------------------|--------------------------|
| Company Name: | Elkhart General Hospital |
| Address: | 600 East Blvd. |
| City: | Elkhart, Indiana 46515 |
| Phone #: | 574-523-3141 |
| MSOP #: | M039-23587-00118 |

I hereby certify that Elkhart General Hospital is :

still in operation.

no longer in operation.

I hereby certify that Elkhart General Hospital is :

in compliance with the requirements of MSOP M039-23587-00118.

not in compliance with the requirements of MSOP M039-23587-00118.

| |
|---------------------------------------|
| Authorized Individual (typed): |
| Title: |
| Signature: |
| Date: |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

| |
|-----------------------|
| Noncompliance: |
| |
| |
| |
| |

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?____, 25 TONS/YEAR SULFUR DIOXIDE ?____, 25 TONS/YEAR NITROGEN OXIDES?____, 25 TONS/YEAR VOC ?____, 25 TONS/YEAR HYDROGEN SULFIDE ?____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?____, 25 TONS/YEAR FLUORIDES ?____, 100TONS/YEAR CARBON MONOXIDE ?____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERM LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF >MALFUNCTION= AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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

SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Elkhart General Hospital
Source Address: 600 East Blvd., Elkhart, Indiana 46515
Mailing Address: 600 East Blvd., Elkhart, Indiana 46515
MSOP Permit No.: M039-23587-00118

| |
|--|
| <input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____ |
|--|

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

A certification by an authorized individual as defined by 326 IAC 2-1.1-1(1) is required for this report.

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

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Elkhart General Hospital
Source Location: 600 East Blvd, Elkhart, Indiana 46515
County: Elkhart
SIC Code: 8062
Operation Permit No.: MSOP 039-23587-00118
Permit Reviewer: Teresa Freeman

The Office of Air Quality (OAQ) has reviewed an application from Elkhart General Hospital relating to the operation of general medical hospital.

Permitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (a) Three (3) natural gas-fired boilers (using no. 2 fuel oil as backup, with a maximum sulfur content of 0.1%), identified as B-1, B-2 and B-3, constructed in 1971, each with a maximum heat input rate of 24.4 million (MM) British thermal units (Btu) per hour, all exhausting to one (1) stack, identified as B-1;
- (b) One (1) natural gas-fired generator, constructed in 1991, with a maximum heat input rate of 7.31 MMBtu/hr, exhausting to one (1) stack, identified as G-2;
- (c) Emergency generators as follows:
 - (1) One (1) emergency generator, identified as G-1, rated at 804 HP, using diesel;
 - (2) One (1) emergency generator, identified as G-3, rated at 940 HP, using diesel;
 - (3) One (1) emergency generator, identified as G-4, rated at 1005 HP, using fuel oil;
 - (4) One (1) emergency generator, identified as G-5, rated at 235 HP, using fuel oil;
 - (5) Three (3) No.2 fuel oil fired emergency generators, identified as M1, M2 and M3, each constructed in 2004, each with a maximum rated capacity of 1,481 horse power, and exhausting to stack/vents S-M1, S-M2 and S-M3, respectively;
- (d) One (1) 3M sterivac 5XL ethylene oxide sterilizer, identified as E-1, constructed in 1990;
- (e) One (1) 12,000 gallon under ground diesel storage tank, identified as T-1 and constructed in 1971; and
- (f) One (1) No. 2 fuel oil storage tank, identified as Main-1, constructed in 2004 with a maximum capacity of 10,000 gallons.

Existing Approvals

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

- (a) MSOP 039-11996-00118, issued on December 4, 2001; and
- (b) Notice Only Change 039-16828-00118, issued on March 11, 2003.
- (c) MSOP Minor Permit Revision 039-19232-00118, issued on August 18, 2004.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation 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 August 30, 2006.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 9).

Potential To Emit of Source Before Controls

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

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 5.59 |
| PM-10 | 8.82 |
| SO ₂ | 53.4 |
| VOC | 3.10 |
| CO | 39.7 |
| NO _x | 89.2 |

| HAP's | Potential To Emit (tons/year) |
|----------------|-------------------------------|
| Ethylene Oxide | 0.09 |
| TOTAL | 0.14 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of regulated pollutants are less than one hundred (100) tons per year and the potential emissions of CO is more than twenty-five (25) tons per year. The potential to emit of hazardous air pollutants (HAPs) is less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per

year for a combination of HAPs. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

County Attainment Status

The source is located in Elkhart County.

| Pollutant | Status |
|-----------------|---------------------|
| PM-10 | attainment |
| PM-2.5 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| 8-hour Ozone | basic nonattainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Elkhart County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Elkhart County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant | Emissions (ton/yr) |
|-----------------|--------------------|
| PM | 5.59 |
| PM10 | 8.82 |
| SO ₂ | 53.4 |
| VOC | 3.10 |
| CO | 39.7 |
| NO _x | 89.2 |

| | |
|------|------|
| HAPs | 0.14 |
|------|------|

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, the total emissions indicated in this permit MSOP-039-23587-00118, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (a) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) are not included in the permit for the three (3) 24.4 MMBtu per hour boilers, identified as B-1, B-2 and B-3. Construction of these units commenced prior to June 9, 1989.
- (b) The requirements of the New Source Performance Standards (NSPS)(40 CFR Part 60, Subpart K) are not included in the permit for the 12,000-gallon tank. Construction of these units commenced prior to June 11, 1973.
- (c) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) are not included in the permit for the 10,000-gallon No. 2 fuel oil storage tank since it has a storage capacity of less than 75 cubic meters.
- (d) The three (3) emergency generators, M1, M2 and M3, to be constructed in 2004 are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ because this source is not a major source of Hazardous Air Pollutants.
- (e) There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) included in this permit for this source.
- (f) There are no National Emissions Standards for Hazardous Air Pollutants (326 IAC 14, 40 CFR Part 61, 326 IAC 20, and 40 CFR Part 63) included in this permit for this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Elkhart County and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. 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 Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) 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.

State Rule Applicability - Individual Facilities

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which began operation on or before June 8, 1972, shall in no case exceed 0.8 lb/MMBtu heat input. Therefore, the PM emissions from the three (3) boilers (identified as B-1, B-2, B-3 and constructed in 1971) each rated at 24.4 MMBtu per hour heat input shall be limited to 0.8 pounds per MMBtu heat input.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The three (3) natural gas-fired boilers using no. 2 fuel oil as back-up fuel are subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations). Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from the three (3) boilers using No. 2 fuel oil shall be limited to 0.5 pounds per million BTU heat input when using No. 2 fuel oil. This equates to a fuel oil sulfur content limit of 0.5%.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO₂ per MMBtu), to the OAQ upon request.

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

- (a) Visible emission notations of the boiler stack (B-1) exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere and while combusting fuel oil.

Conclusion

The operation of this general medical hospital shall be subject to the conditions of the attached proposed Minor Source Operating Permit 039-23587-00118.

Appendix A: Emission Summary

Company Name: Elkhart General Hospital
Address City IN Zip: 600 East Blvd, Elkhart, IN 46515
MSOP: 039-23857-00118
Reviewer: Teresa Freeman

| Uncontrolled Potential Emissions (tons/year) | | | | | | | |
|--|-----------------------------|------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|-------------------------------|--------------|
| Emissions Generating Activity | | | | | | | |
| Pollutant | Boilers B-1, B-2 and B-3 | Natural gas-fired Generator G-2 | Emergency Generators G-1 and G-3 | Emergency Generators G-4 and G-5 | Emergency Generators M1, M2 and M3 | Ethylene Oxide Sterilizer* | TOTAL |
| PM | 4.58 | 0.06 | 0.31 | 0.22 | 0.42 | 0.00 | 5.59 |
| PM10 | 7.56 | 0.24 | 0.31 | 0.22 | 0.49 | 0.00 | 8.82 |
| SO2 | 32.52 | 0.02 | 1.76 | 5.02 | 14.06 | 0.00 | 53.38 |
| NOx | 45.80 | 3.20 | 10.50 | 7.44 | 22.27 | 0.00 | 89.21 |
| VOC | 1.76 | 0.18 | 0.31 | 0.22 | 0.63 | 0.00 | 3.10 |
| CO | 26.93 | 2.69 | 2.40 | 1.71 | 5.92 | 0.00 | 39.65 |
| total HAPs | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.09 | 0.14 |
| worst case single HAP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.09 |
| Total emissions based on rated capacity at 8,760 hours/year, except emergency generator which are rated at 500 hours/year. | | | | | | | |
| * Based on emission calculations provided by the source. | | | | | | | |
| Controlled Potential Emissions (tons/year) | | | | | | | |
| Emissions Generating Activity | | | | | | | |
| Pollutant | Boilers B-1, B-2 and B-3 | Natural gas-fired Generator G-2 | Emergency Generators G-1 and G-3 | Emergency Generators G-4 and G-5 | Emergency Generators M1, M2 and M3 | Ethylene Oxide Sterilizer* | TOTAL |
| PM | 4.58 | 0.06 | 0.31 | 0.22 | 0.42 | 0.00 | 5.59 |
| PM10 | 7.56 | 0.24 | 0.31 | 0.22 | 0.49 | 0.00 | 8.82 |
| SO2 | 32.52 | 0.02 | 1.76 | 5.02 | 14.06 | 0.00 | 53.38 |
| NOx | 45.80 | 3.20 | 10.50 | 7.44 | 22.27 | 0.00 | 89.21 |
| VOC | 1.76 | 0.18 | 0.31 | 0.22 | 0.63 | 0.00 | 3.10 |
| CO | 26.93 | 2.69 | 2.40 | 1.71 | 5.92 | 0.00 | 39.65 |
| total HAPs | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.09 | 0.14 |
| worst case single HAP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.09 |
| Total emissions based on rated capacity at 8,760 hours/year, except emergency generator which are rated at 500 hours/year. | | | | | | | |
| * Based on emission calculations provided by the source. | | | | | | | |

Appendix A: Emissions Calculations

Boilers B-1, B-2 and B-3

Company Name: Elkhart General Hospital
Address, City IN Zip: 600 East Blvd, Elkhart, IN 46515
MSOP: 039-23587-00118
Reviewer: Teresa Freeman

Potential Emission using Natural Gas

Heat Input Capacity Potential Throughput
 MMBtu/hr MMCF/yr

73.2 641.2

Facilities include three (3) boilers each rated at 24.4 MMBtu/hr with #2 Fuel Oil as Backup

| Emission Factor in lb/MMCF | Pollutant | | | | | |
|-------------------------------|-----------|-------|------|-------------|------|-------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| | 1.9 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 |
| | | | | **see below | | |
| Potential Emission in tons/yr | 0.61 | 2.44 | 0.19 | 32.06 | 1.76 | 26.93 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx 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 are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Potential Emissions using No. 2 Fuel Oil

Heat Input Capacity Potential Throughput S = Weight % Sulfur
 MMBtu/hr kgals/year 0.1

73.2 4580.228571

Facilities include three (3) boilers each rated at 24.4 MMBtu/hr

| Emission Factor in lb/kgal | Pollutant | | | | | |
|-------------------------------|-----------|------|------------------|-------|------|-------|
| | PM* | PM10 | SO2 | NOx | VOC | CO |
| | 2.0 | 3.3 | 14.2 (142.0S) | 20.0 | 0.34 | 5.0 |
| Potential Emission in tons/yr | 4.58 | 7.56 | 32.52 | 45.80 | 0.78 | 11.45 |

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 per 1000 gallon x 1 gal per 0.140 MM 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 erata file)
 *PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
 Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
 Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Boilers 1, 2 and 3 can operate using either natural gas or no. 2 fuel oil. The total represents the worst case emissions for each pollutant.

| | PM | PM10 | SO2 | NOx | VOC | CO |
|-------------------------------|------|------|-------|-------|------|-------|
| Potential Emission in tons/yr | 4.58 | 7.56 | 32.52 | 45.80 | 1.76 | 26.93 |

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Boiler G-2**

Company Name: Elkhart General Hospital
Address City IN Zip: 600 East Blvd, Elkhart, IN 46515
MSOP: 039-23587-00118
Reviewer: Teresa Freeman

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

7.31

64.0

| | |
|--------------------|-----------------|
| Facilities | MMBtu/hr |
| Generator #2 (G-2) | 7.31 |
| Total | 7.31 |

Pollutant

| | PM* | PM10* | SO2 | NOx | VOC | CO |
|-------------------------------|------|-------|------|-------------|------|------|
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 |
| | | | | **see below | | |
| Potential Emission in tons/yr | 0.06 | 0.24 | 0.02 | 3.20 | 0.18 | 2.69 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx 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 are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emission Calculations
Internal Combustion Engines
Criteria Pollutant Emissions
Emergency Generators G-1 and G-3**

Company Name: Elkhart General Hospital
Address: 600 East Blvd., Elkhart, IN 46515
Permit Number: 039-23587-00118
Reviewer: Teresa Freeman
Date: 15-Nov-06

| | | |
|----------------------------------|--------------------------|---------------------|
| Power Output Horse Power (HP) | Operation Limit hr/yr | S = Weight % Sulfur |
| 1,744 (2 units total) | 500 | 0.5 |

| Emission Factor in lb/HP-hr | Pollutant | | | | | |
|-------------------------------------|-------------|-------------|--------------------------|-----------------|-------------|-------------|
| | PM* | PM10* | SO ₂ | NO _x | **VOC | CO |
| | 7.00E-04 | 7.00E-04 | 4.05E-03 (8.09E-03*S) | 2.40E-02 | 7.05E-04 | 5.50E-03 |
| Potential to Emit in tons/yr | 0.31 | 0.31 | 1.76 | 10.5 | 0.31 | 2.40 |

*Assume PM10 emissions are equal to PM emissions.

** Assume TOC (total organic compounds) emissions are equal to VOC emissions.

Emission factors are from AP-42, Table 3.4-1, SCC #2-02-004-01 (AP-42, 10/96).

Note: As defined in the September 6, 1995 memorandum from John S. Seitz of US EPA on the subject of "Calculating Potential to Emit for Emergency Generators", an emergency generator's sole function is to provide back-up power when power from the local utility is interrupted. The only circumstances under which an emergency generator would operate when utility power is available are during operator training or brief maintenance checks. The generator's potential to emit is based on an operating time of 500 hours per year as set forth in the EPA memo.

Methodology

PTE (tons/yr) = Power Output (HP) x Emission Factor (lb/HP-hr) x Operation Limit (hr/yr) x 1 ton/2000 lbs

Appendix A: Emission Calculations

**Internal Combustion Engines
HAP Emissions
Emergency Generators G-1 and G-3**

Company Name: Elkhart General Hospital
Address: 600 East Blvd., Elkhart, IN 46515
Permit Number: 039-23587-00118
Reviewer: Teresa Freeman
Date: 15-Nov-06

Power Output
Horse Power (HP)

Operation Limit
hr/yr

1,744

500

| Facilities | HP |
|-----------------|-------------|
| Generator (G-4) | 1005 |
| Generator (G-5) | 235 |
| Total | 1240 |

Pollutant

| | Benzene | Toluene | Xylene | Propylene | Formaldehyde | Acetaldehyde |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Emission Factor in lbs/MMBtu | 7.76E-04 | 2.81E-04 | 1.93E-04 | 2.79E-03 | 7.89E-05 | 2.52E-05 |
| Potential to Emit in tons/yr | 8.63E-03 | 3.12E-03 | 2.15E-03 | 3.10E-02 | 8.77E-04 | 2.80E-04 |

Emission factors are from AP-42, Table 3.4-3, SCC #2-02-004-01 (AP-42, 10/96).

Note: As defined in the September 6, 1995 memorandum from John S. Seitz of US EPA on the subject of "Calculating Potential to Emit for Emergency Generators", an emergency generator's sole function is to provide back-up power when power from the local utility is interrupted. The only circumstances under which an emergency generator would operate when utility power is available are during operator training or brief maintenance checks. The generator's potential to emit is based on an operating time of 500 hours per year as set forth in the EPA memo.

Total HAPs = 0.05 tons/yr

Methodology

PTE (tons/yr) = Power Output (HP) x 0.0255 MMBtu/hr-HP x Emission Factor (lbs/MMBtu) x Operation Limit (hr/yr) x 1 ton/2000 lbs

**Appendix A: Emission Calculations
Internal Combustion Engines - #2 Fuel Oil
Emergency Generator G-4 and G-5**

Company Name: Elkhart General Hospital
Address City IN Zip: 600 East Blvd, Elkhart, IN 46515
MSOP#: 039-23587-00118
Reviewer: Teresa Freeman

Emissions calculated based on output rating (hp)

Power Output Potential Throughput
Horsepower (hp) hp-hr/yr

S = 2 = WEIGHT % SULFUR

| | |
|--------|----------|
| 1240.0 | 620000.0 |
|--------|----------|

| Facilities | HP |
|-----------------|-------------|
| Generator (G-4) | 1005 |
| Generator (G-5) | 235 |
| Total | 1240 |

| Emission Factor in lb/hp-hr | Pollutant | | | | | |
|-------------------------------|-----------|--------|---------------------|----------------------|---------|---------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| | 0.0007 | 0.0007 | 0.0162 (.00809S) | 0.024 **see below | 0.00071 | 0.00550 |
| Potential Emission in tons/yr | 0.22 | 0.22 | 5.02 | 7.44 | 0.22 | 1.71 |

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr
Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.

Methodology

Potential Throughput (hp-hr/yr) = hp * 500 hr/yr
Emission Factors are from AP 42 (Supplement B 10/96) Table 3.4-1.
Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)
PTE was calculated using 500 hours per year for emergency generator.

* No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included.

**Appendix A: Emission Calculations
Internal Combustion Engines - #2 Fuel Oil
HAP Emissions
Emergency Generator G-4 and G-5**

Company Name: Elkhart General Hospital
Address: 600 East Blvd., Elkhart, IN 46515
Permit Number: 039-23587-00118
Reviewer: Teresa Freeman
Date: 15-Nov-06

Emissions calculated based on output rating (hp)

Power Output Potential Throughput
Horsepower (hp) hp-hr/yr

S= 2 = WEIGHT % SULFUR

| | |
|--------|----------|
| 1240.0 | 620000.0 |
|--------|----------|

| Facilities | HP |
|-----------------|-------------|
| Generator (G-4) | 1005 |
| Generator (G-5) | 235 |
| Total | 1240 |

| Pollutant | | | | | | |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Emission Factor in lbs/MMBtu | Benzene | Toluene | Xylene | Propylene | Formaldehyde | Acetaldehyde |
| | 7.76E-04 | 2.81E-04 | 1.93E-04 | 2.79E-03 | 7.89E-05 | 2.52E-05 |
| Potential to Emit in tons/yr | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Emission factors are from AP-42, Table 3.4-3, SCC #2-02-004-01 (AP-42, 10/96).

Note: As defined in the September 6, 1995 memorandum from John S. Seitz of US EPA on the subject of "Calculating Potential to Emit for Emergency Generators", an emergency generator's sole function is to provide back-up power when power from the local utility is interrupted. The only circumstances under which an emergency generator would operate when utility power is available are during operator training or brief maintenance checks. The generator's potential to emit is based on an operating time of 500 hours per year as set forth in the EPA memo.

Total HAPs = 0.00

Methodology

PTE (tons/yr) = Power Output (HP) x 0.0255 MMBtu/hr-HP x Emission Factor (lbs/MMBtu) x Operation Limit (hr/yr) x 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Emergency Generators M1, M2 and M3
No. 2 fuel oil**

Company Name: Elkhart General Hospital
Address, City IN Zip: 600 East Blvd., Elkhart, Indiana 46515
Permit Number: 039-23587-00118
Reviewer: Teresa Freeman
Date: October 3, 2006

Heat Input Capacity
MMBtu/hr

Potential Throughput
kgals/year

S = Weight % Sulfur
2.00

27.84

13920

| | Pollutant | | | | | |
|-------------------------------|-----------|------|-----------------|-------|------|------|
| Emission Factor in lb/kgal | PM10 | PM* | SO2 | NOx | VOC | CO |
| | 0.06 | 0.07 | 2.02 (1.01S) | 3.20 | 0.09 | 0.85 |
| Potential Emission in tons/yr | 0.42 | 0.49 | 14.06 | 22.27 | 0.63 | 5.92 |

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 500 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Each 1,481 horsepower (hp) generator is equal to 9.28 million British Thermal units (MMBtu) per hour, for a total of 27.84 MMBtu/hr, based on information provided by the manufacturer.

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 erata file)

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

See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Large Stationary Diesel Engines
No. 2 fuel oil
HAPs Emissions

Company Name: Elkhart General Hospital
Address, City IN Zip: 600 East Blvd., Elkhart, Indiana 46515
Permit Number: 039-23587-00118
Reviewer: Teresa Freeman
Date: October 3, 2006

| | HAPs - Metals | | | | |
|-------------------------------|--------------------|----------------------|--------------------|---------------------|-----------------|
| Emission Factor in lb/mmBtu | Arsenic 4.0E-06 | Beryllium 3.0E-06 | Cadmium 3.0E-06 | Chromium 3.0E-06 | Lead 9.0E-06 |
| Potential Emission in tons/yr | 4.88E-04 | 3.66E-04 | 3.66E-04 | 3.66E-04 | 1.10E-03 |

| | HAPs - Metals (continued) | | | |
|-------------------------------|---------------------------|----------------------|-------------------|---------------------|
| Emission Factor in lb/mmBtu | Mercury 3.0E-06 | Manganese 6.0E-06 | Nickel 3.0E-06 | Selenium 1.5E-05 |
| Potential Emission in tons/yr | 3.66E-04 | 7.32E-04 | 3.66E-04 | 1.83E-03 |

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*500 hrs/yr / 2,000 lb/ton