



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 27, 2007
RE: Indiana Veterans' Home / 157-23833-00009
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



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.in.gov/idem

Minor Source Operating Permit OFFICE OF AIR QUALITY

**Indiana Veterans' Home
3851 North River Road
West Lafayette, Indiana 47906**

(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.

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.

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.

Operation Permit No.: MSOP 157-23833-00009	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: February 27, 2007 Expiration Date: February 27, 2012

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	4
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
SECTION B	GENERAL CONDITIONS	5
B.1	Definitions [326 IAC 2-1.1-1]	
B.2	Permit Term [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability	
B.5	Severability	
B.6	Property Rights or Exclusive Privilege	
B.7	Duty to Provide Information	
B.8	Certification	
B.9	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.10	Preventive Maintenance Plan [326 IAC 1-6-3]	
B.11	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.12	Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.13	Permit Renewal [326 IAC 2-6.1-7]	
B.14	Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]	
B.15	Source Modification Requirement	
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] [IC13-17-3-2] [IC 13-30-3-1]	
B.17	Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]	
B.18	Annual Fee Payment [326 IAC 2-1.1-7]	
B.19	Credible Evidence [326 IAC 1-1-6]	
SECTION C	SOURCE OPERATION CONDITIONS	10
	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]	
C.2	Permit Revocation [326 IAC 2-1.1-9]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Stack Height [326 IAC 1-7]	
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	Testing Requirements [326 IAC 2-6.1-5(a)(2)]	
C.9	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.10	Compliance Requirements [326 IAC 2-1.1-11]	
	Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]	
C.11	Compliance Monitoring [326 IAC 2-1.1-11]	
C.12	Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]	
	Corrective Actions and Response Steps	
C.13	Response to Excursions or Exceedances	
C.14	Actions Related to Noncompliance Demonstrated by a Stack Test	

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

- C.15 Malfunctions Report [326 IAC 1-6-2]
- C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]
- C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

Stratospheric Ozone Protection

- C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 EMISSIONS UNIT OPERATION CONDITIONS: Boilers..... 16

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

- D.1.1 Particulate [326 IAC 6-2-3]
- D.1.2 Particulate [326 IAC 6-2-4]
- D.1.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.5 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.6 Visible Emissions Notations

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

- D.1.7 Record Keeping Requirements
- D.1.8 Reporting Requirements

New Source Performance Standards (NSPS) Requirements [326 IAC 12]

- D.1.9 General Provisions Relating to NSPS Subpart Dc [326 IAC 12-1] [40 CFR Part 60, Subpart A]
- D.1.10 NSPS Subpart Dc Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]
- D.1.11 State Only Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [326 IAC 12]
- D.1.12 One Time Deadlines Relating to NSPS, Subpart Dc

D.2 EMISSIONS UNIT OPERATION CONDITIONS: Gasoline dispensing operations 25

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

- D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

Certification	26
Annual Notification	27
Malfunction Report	28
Semi-annual Natural Gas-Fired Boiler Certification	30

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 health care and residential facility.

Authorized Individual:	Assistant Engineer
Source Address:	3851 North River Road, West Lafayette, Indiana 47906
Mailing Address:	3851 North River Road, West Lafayette, Indiana 47906
General Source Phone Number:	(765) 232-8008
SIC Code:	8069 and 8062
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) boiler, identified as Boiler 1, constructed in 1977, exhausting to Stack 1, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.
- (b) One (1) boiler, identified as Boiler 2, constructed in 1977, exhausting to Stack 2, using natural gas, heat input capacity: 12.1 million British thermal units per hour.
- (c) One (1) boiler, identified as Boiler 3, constructed in 2000, exhausting to Stack 3, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.
- (d) Four (4) diesel fuel-fired emergency generators, identified as EU-400, EU-650, EU-800 and EU-980, constructed in 1977, 1978, 1992 and 1995, respectively, with output ratings of 400, 650, 800 and 980 horsepower, respectively.
- (e) The following fuel storage and dispensing operations:
 - (1) One (1) gasoline storage tank, identified as AST-01, constructed in 1996, with a maximum annual throughput rate of 2,000,000 gallons, capacity: 2,000 gallons.
 - (2) One (1) diesel fuel storage tank, identified as BULK-TANK, constructed in 1998, with a maximum annual throughput rate of 2,600,000 gallons, capacity: 2,000 gallons.
 - (3) One (1) diesel fuel storage tank, identified as AST-02, constructed in 1992, with a maximum annual throughput rate of 2,000,000 gallons, capacity: 2,000 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, 157-23833-00009, 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, Indiana 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 157-23833-00009 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.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] [IC13-17-3-2] [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.

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.

Corrective Actions and Response Steps

C.13 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;
 - (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.14 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.15 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.16 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.17 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.

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: Boilers

- (a) One (1) boiler, identified as Boiler 1, constructed in 1977, exhausting to Stack 1, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.
- (b) One (1) boiler, identified as Boiler 2, constructed in 1977, exhausting to Stack 2, using natural gas, heat input capacity: 12.1 million British thermal units per hour.
- (c) One (1) boiler, identified as Boiler 3, constructed in 2000, exhausting to Stack 3, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from the two (2) boilers, identified as Boiler 1 and Boiler 2, constructed in 1977, with heat input capacities of 20.2 and 12.1 million British thermal units per hour, respectively, shall be limited to 0.29 pound per million British thermal units heat input.

This limitation is based on the following equation:

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

where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
- Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input.
- C = Maximum ground level concentration with respect to distance from the point source at the critical wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.
- N = Number of stacks in fuel burning operation.
- a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input.
- h = Average stack height in feet.

D.1.2 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from the one (1) boiler, identified as Boiler 3, constructed in 2000, with a heat input capacity of 20.2 million British thermal units per hour, shall be limited to 0.39 pound per million British thermal units heat input.

This limitation is based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input.

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

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the two (2) boilers, identified as Boiler 1 and Boiler 3, shall not exceed five tenths (0.5) pound per million British thermal units heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

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

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

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

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts (Stacks 1 and 3) shall be performed once per day during normal daylight operations when a boiler exhausting to the stack is operating on 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 2-6.1-5(a)(2)]

D.1.7 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

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

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.1.6, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per day.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

The natural gas boiler certification shall be submitted for Boiler 1 and Boiler 3 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 its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

New Source Performance Standards (NSPS) Requirements [326 IAC 12]

D.1.9 General Provisions Relating to NSPS Subpart Dc [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for the one (1) boiler, identified as Boiler 3.

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

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

D.1.10 NSPS Subpart Dc Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Pursuant to CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, for the one (1) boiler, identified as Boiler 3, as specified as follows:

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

§ 60.41c Definitions.

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

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR—see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils” (incorporated by reference—see §60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO₂) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

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

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835–86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference—see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference—see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

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

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42c Standard for sulfur dioxide.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f)(1), (2), or (3), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f)(1), (2), or (3), as applicable.

§ 60.46c Emission monitoring for sulfur dioxide.

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f) (1), (2), or (3), as applicable.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(d) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.43c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO₂ emission rate (nj/J or lb/million Btu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO₂ or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

D.1.11 State Only Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [326 IAC 12]

Pursuant to 326 IAC 12, the Permittee shall record and maintain records of the amounts of each fuel combusted during each day.

D.1.12 One Time Deadlines Relating to NSPS, Subpart Dc

The Permittee shall comply with the following requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Notification of the date of construction or reconstruction	40 CFR 60.48c(a)	Boiler 3	no later than 30 days after such date
Notification of the date of anticipated startup and actual startup	40 CFR 60.48c(a)	Boiler 3	within 15 days after such date

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Gasoline storage and dispensing

- (e) The following fuel storage and dispensing operations:
- (1) One (1) gasoline storage tank, identified as AST-01, constructed in 1996, with a maximum annual throughput rate of 2,000,000 gallons, capacity: 2,000 gallons.

(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 2-6.1-5(a)(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

Pursuant to 326 IAC 8-4-6(b) and (c):

- (a) No owner or operator of a gasoline dispensing facility shall allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:
 - (1) A submerged fill pipe.
 - (2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
 - (3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.
- (b) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is connected between the transport and the storage tank and is operating according to manufacturer's specifications.

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

**MINOR SOURCE OPERATING PERMIT
CERTIFICATION**

Source Name: Indiana Veterans' Home
Source Address: 3851 North River Road, West Lafayette, Indiana 47906
Mailing Address: 3851 North River Road, West Lafayette, Indiana 47906
Permit No.: MSOP 157-23833-00009

**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:

Phone:

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).

Source Name:	Indiana Veterans' Home
Address:	3851 North River Road
City:	West Lafayette, Indiana 47906
Phone #:	(765) 232-8008
MSOP #:	157-23833-00009

I hereby certify that Indiana Veterans' Home is

- still in operation.
- no longer in operation.

I hereby certify that Indiana Veterans' Home is

- in compliance with the requirements of MSOP 157-23833-00009.
- not in compliance with the requirements of MSOP 157-23833-00009.

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 PERMIT 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
For Boilers 1 and 3**

Source Name: Indiana Veterans' Home
Location: 3851 North River Road, West Lafayette, Indiana 47906
Mailing Address: 3851 North River Road, West Lafayette, Indiana 47906
Permit No.: MSOP 157-23833-00009

<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 and 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:	Indiana Veterans' Home
Source Location:	3851 North River Road, West Lafayette, Indiana 47906
County:	Tippecanoe
SIC Code:	8062 and 8069
Operation Permit No.:	MSOP 157-23833-00009
Permit Reviewer:	CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed an application from Indiana Veterans' Home relating to the operation of a health care and residential facility. This facility is a residential community including many buildings in which health care may be provided. This proposed permit is a transition from F 157-19136-00009, issued on July 26, 2005, to a Minor Source Operating Permit due to the removal of a waste incinerator and the removal of the ability to burn No. 2 fuel oil at one (1) of the boilers (Boiler 2).

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) boiler, identified as Boiler 1, constructed in 1977, exhausting to Stack 1, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.
- (b) One (1) boiler, identified as Boiler 2, constructed in 1977, exhausting to Stack 2, using natural gas, heat input capacity: 12.1 million British thermal units per hour.
- (c) One (1) boiler, identified as Boiler 3, constructed in 2000, exhausting to Stack 3, using natural gas or No. 2 fuel oil, heat input capacity: 20.2 million British thermal units per hour.
- (d) Four (4) diesel fuel-fired emergency generators, identified as EU-400, EU-650, EU-800 and EU-980, constructed in 1977, 1978, 1992 and 1995, respectively, with output ratings of 400, 650, 800 and 980 horsepower, respectively.
- (e) The following fuel storage and dispensing operations:
 - (1) One (1) gasoline storage tank, identified as AST-01, constructed in 1996, with a maximum annual throughput rate of 2,000,000 gallons, capacity: 2,000 gallons.
 - (2) One (1) diesel fuel storage tank, identified as BULK-TANK, constructed in 1998, with a maximum annual throughput rate of 2,600,000 gallons, capacity: 2,000 gallons.
 - (3) One (1) diesel fuel storage tank, identified as AST-02, constructed in 1992, with a maximum annual throughput rate of 2,000,000 gallons, capacity: 2,000 gallons.

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment

There are no proposed emission units during this review process.

Emission Units and Pollution Control Equipment Removed

The following facility has been removed from the source and is not included in the proposed permit:

One (1) waste incinerator, identified as Incinerator, constructed in 1993, exhausting to Stack 4, using natural gas as a supplemental fuel, capacity: 6.6 million British thermal units and 590 pounds of general trash and medical waste per hour.

Existing Approvals

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

F 157-19136-00009, issued on July 26, 2005

All terms and conditions from previous approvals were either incorporated as originally stated, revised or deleted by this MSOP. The following terms and conditions have been removed or revised:

- (a) Condition D.1.2(b): Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from Boilers 1 and 2 shall not exceed five tenths (0.5) pound per million British thermal units heat input when operating on fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

Reason not incorporated: Boiler 1 is still subject to the requirements of 326 IAC 7-1.1. However, Boiler 2 will not be capable of burning No. 2 fuel oil. Therefore, the potential SO₂ emissions from Boiler 2 will be less than 10 pounds per hour and 25 tons per year, and the requirements of 326 IAC 7-1.1 are not applicable to Boiler 2.

- (b) Condition D.1.2(c): Pursuant to 326 IAC 2-8-4, the total use of No. 2 fuel oil by the three (3) boilers, identified as Boiler 1, Boiler 2 and Boiler 3, shall not exceed 2,718,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. The sulfur content of the used oil shall not exceed five-tenths percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the boilers to 96.6 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply.

Reason not incorporated: Boiler 2 will not be capable of burning No. 2 fuel oil. Therefore, the potential SO₂ emissions are less than 100 tons per year and no limit is required to render the requirements of 326 IAC 2-7, Part 70, not applicable.

- (c) Conditions D.2.1, D.2.2, D.2.3 and D.2.4: Conditions applicable to the one (1) waste incinerator:

- (1) D.2.1: Pursuant to 326 IAC 4-2-2, the waste incinerator, rated at 590 pounds per hour shall:

- (a) Consist of primary and secondary chambers or the equivalent;

- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
- (d) Be maintained properly according to an operation and maintenance plan meeting the following requirements:
 - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in (i), below, and shall include the following:
 - (A) Procedures for receiving, handling, and charging waste.
 - (B) Procedures for incinerator startup and shutdown.
 - (C) Procedures for responding to a malfunction.
 - (D) Procedures for maintaining proper combustion air supply levels.
 - (E) Procedures for operating the incinerator and associated air pollution control systems.
 - (F) Procedures for handling ash.
 - (G) A list of wastes that can be burned in the incinerator.
 - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
 - (3) The operation and maintenance plan shall be readily accessible to incinerator operators.
 - (4) The Permittee shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed.
 - (5) The Permittee shall make the operation and maintenance plan available to the department upon request.
- (e) Only burn waste approved by IDEM;
- (f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) Be operated so that emissions of hazardous materials including, but not limited to, viable pathogenic bacteria, dangerous chemical or gases, or noxious odors are prevented;
- (h) Not create a nuisance or a fire hazard; and

- (i) Not emit particulate matter (PM) in excess of 0.3 pounds per 1,000 pounds of dry exhaust gas corrected to fifty percent (50%) excess air.

The operation of the incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

- (2) D.2.2: Pursuant to 326 IAC 9-1-2(a)(3), the Permittee shall not operate a refuse incinerator or refuse burning equipment unless the waste gas stream is burned in a direct-flame afterburner or secondary chamber.
- (3) Pursuant to 326 IAC 2-8-4 and in order to qualify as a co-fired combustor, the Permittee shall limit the fuel feed stream at the incinerator to ten percent (10%) or less of hospital and medical/ infectious waste by weight per calendar quarter. In no case shall the amount of hospital and medical/infectious waste in the fuel feed stream exceed 258.42 tons per twelve (12) consecutive month period, with compliance determined at the end of each quarter. This will limit the individual HAP emissions from the incinerator to 4.33 tons per year and the total HAP emissions to 4.39 tons per year. Therefore, the total HAP emissions from the entire source will be limited to less than 10 tons per year, and the worst-case individual HAP emissions from the entire source are limited to less than 25 tons per year. Thus, the requirements of 326 IAC 2-7 do not apply. This will also make the incinerator exempt from the requirements of 326 IAC 11-6 and 40 CFR 60, Subpart Ce.
- (4) D.2.4: Within 180 days after issuance of this FESOP, in order to demonstrate compliance with Condition D.2.1(i), the Permittee shall perform PM testing for the incinerator utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

Reason not incorporated: The incinerator has been removed from this source.

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 October 31, 2006, with additional information received on November 9, 2006, and November 21, 2006.

Emission Calculations

See Appendix A of this document for detailed emission calculations (5 pages).

Potential to Emit of the 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/yr)
PM	3.27
PM ₁₀	5.22
SO ₂	92.4
VOC	18.5
CO	23.3
NO _x	48.3

HAPs	Potential to Emit (tons/yr)
Benzene	0.721
Formaldehyde	0.019
Hexane	1.13
Toluene	3.60
Lead	0.002
Cadmium	0.001
Chromium	0.001
Manganese	0.001
Nickel	0.001
Arsenic	0.001
Beryllium	0.001
Mercury	0.001
Selenium	0.003
Ethyl benzene	0.431
Naphthalene	0.431
Xylenes	2.16
Acetylaldehyde	0.001
Propylene	0.005
Dichlorobenzene, Acrolein	< 0.001, each
Total	8.51

The potential to emit of SO₂ and NO_x is greater than twenty-five (25) tons per year, but the potential to emit of each criteria pollutant is less than one hundred (100) tons per year, the potential to emit of any single HAP is less than ten (10) tons per year, and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. 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 Tippecanoe County.

Pollutant	Status
PM _{2.5}	attainment
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (b) Tippecanoe 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 of this document.
- (c) Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all remaining 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 - Entire Source section of this document.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.

- (e) **Fugitive Emissions**
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 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. Pursuant to 326 IAC 2-7-2(e), all fugitive emissions are counted toward the determination of Part 70 Applicability.

Source Status after Issuance of this Permit

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 (tons/yr)
PM	3.27
PM ₁₀	5.22
SO ₂	92.4
VOC	18.5
CO	23.3
NO _x	48.3
Single HAP	3.60
Combination HAPs	8.51

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.
- (b) Emissions were based on the calculations in Appendix A of this document.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP 157-23833-00009, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one-hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per 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) This source does not require a Part 70, Title V Operating Permit. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not included in the permit.
- (b) The requirements of the New Source Performance Standard, 40 CFR 60, Subpart D, are not included in the permit for this source. The three (3) boilers, all constructed after August 17, 1971, each have a capacity less than 250 million British thermal units per hour.
- (c) The requirements of the New Source Performance Standard, 40 CFR 60, Subpart Da, are not included in the permit for this source. The two (2) boilers, identified as Boilers 1 and 2, were constructed prior to September 18, 1978, and the one (1) boiler, identified as Boiler 3, constructed after September 18, 1978, has a capacity less than 250 million British thermal units per hour.
- (d) The requirements of the New Source Performance Standard, 40 CFR 60, Subpart Db, are not included in the permit for this source. The two (2) boilers, identified as Boilers 1 and 2, were constructed prior to June 19, 1984, and the one (1) boiler, identified as Boiler 3, constructed after June 19, 1984, has a capacity less than 100 million British thermal units per hour.
- (e) The requirements of the New Source Performance Standard, 40 CFR 60 Subpart Dc, are not included in the permit for the two (2) boilers, identified as Boilers 1 and 2. The two (2) boilers were constructed prior to June 9, 1989.
- (f) Boiler 3, constructed after June 9, 1989, has a capacity greater than 10 million British thermal units per hour and less than 100 million British thermal units per hour. Therefore, the one (1) boiler is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Dc), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

Boiler 3 is subject to the following portions of Subpart Dc. Non-applicable portions of the NSPS will not be included in the permit.

- (1) 40 CFR 60.40c (a) and (b)
- (2) 40 CFR 60.41c
- (3) 40 CFR 60.42c (d), (g), (h)(1), and (i)
- (4) 40 CFR 60.44c (g) and (h)
- (5) 40 CFR 60.46c (e)
- (6) 40 CFR 60.48c (a)(1), (d), (e)(1) - (5) and (11), (f)(1), (g), (i) and (j)
- (7) The provisions of 40 CFR Part 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12, apply to Boiler 3 except when otherwise specified in 40 CFR 60, Subpart Dc.

This rule is incorporated by reference by 326 IAC 12. Pursuant to 326 IAC 1-1-3, unless otherwise indicated, any reference to a provision of the Code of Federal Regulations

(CFR) shall mean the July 1, 2005, edition. 40 CFR 60, Subpart Dc was revised on February 27, 2006. Therefore, the February 27, 2006, revisions to the federal rule are not approved into the SIP, and Boiler 3 is still subject to the previous version of the rule, as well as the revised version addressed above.

When the revised rule is incorporated into the 326 IAC, the Permittee may apply for a revision to the permit to remove any requirements from the previous version of the rule that are not present in the updated version of the rule. All of the requirements of version of the rule referenced by 326 IAC 12 that are applicable to this source are the same as the requirements listed above except for the following:

40 CFR 60.48c(g) has been revised to indicate that an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month, rather than each day. Therefore, the Permittee must record and maintain records of the amounts of each fuel combusted during each day in order to comply with 326 IAC 12.

- (g) The fuel storage tanks at this source each has a capacity less than 75 cubic meters. Therefore, the requirements of 40 CFR 60.110b, Subpart Kb, are not included in the permit for this source.
- (h) This source is not a major source of HAPs. Therefore, the requirements of 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, are not included in the permit for this source.
- (i) The four (4) emergency generators were constructed prior to December 19, 2002. Therefore, each is an existing emergency reciprocating internal combustion engine (RICE). Pursuant to 40 CFR 63.6590(b)(3), an existing emergency stationary RICE does not have to meet the requirements of Subpart ZZZZ or Subpart A of Part 63. Therefore, the requirements of 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, are not included in the permit.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not located in Lake or Porter County, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

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

The unrestricted potential emissions of each attainment criteria pollutant are less than two-hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-4.1-1 (New source toxics control)

The unrestricted potential emissions of each individual HAP are less than ten (10) tons per year and the unrestricted potential emissions of any combination of HAPs are less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 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 the 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.

State Rule Applicability – Individual Facilities

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The two (2) boilers, identified as Boiler 1 and Boiler 2, constructed in 1977, with heat input capacities of 20.2 and 12.1 million British thermal units per hour, respectively, must comply with the particulate emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation given in 326 IAC 6-2-3:

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

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input.

C = Maximum ground level concentration with respect to distance from the point source at the critical wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input.

h = Average stack height in feet.

For the two (2) boilers:

$$Pt = 50 \times 0.67 \times 10.5 / 76.5 \times (32.3)^{0.75} \times 2^{0.25} = 0.29 \text{ lb/MMBtu}$$

Based on Appendix A, the potential PM emission rate when operating on No. 2 fuel oil is:

$$2.00 \text{ lbs}/1,000 \text{ gal} \times 1 \text{ gal}/0.14 \text{ MMBtu} = 0.014 \text{ lb PM per MMBtu}$$

Based on Appendix A, the potential PM emission rate when operating on natural gas is:

$$1.90 \text{ lbs}/\text{MMcf} \times 1 \text{ MMcf}/1,000 \text{ MMBtu} = 0.0019 \text{ lb PM per MMBtu}$$

Therefore, the two (2) boilers, identified as Boiler 1 and Boiler 2, will comply with this rule.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) boiler, identified as Boiler 3, constructed in 2000, must comply with the requirements of 326 IAC 6-2-4. The emission limitation is based on the following equation given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input.

The heat input capacity of the Boiler 3 is 20.2 million British thermal units per hour. There were two (2) boilers rated at 32.3 million British thermal units per hour, total, in operation when this boiler was constructed.

$$Pt = 1.09/(52.5)^{0.26} = 0.39 \text{ lb/MMBtu heat input}$$

Based on the AP-42 emission factors, the PM emission rate when operating on No. 2 fuel oil is 0.014 lb/MMBtu, and the PM emission rate when operating on natural gas is 0.0019 lb/MMBtu.

Therefore, the one (1) boiler, identified as Boiler 3, will comply with this rule.

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

- (a) The three (3) boilers perform combustion for indirect heating and are limited by 326 IAC 6-2. Therefore, pursuant to 326 IAC 6-3-1(b)(1), the boilers are exempt from the requirements of 326 IAC 6-3.
- (b) Pursuant to 326 IAC 6-3-1.5(2), the definition of a manufacturing process is "any single or series of actions, operations, or treatments in which a mechanical, physical, or chemical transformation of material occurs that emits, or has the potential to emit, particulate in the production of the product. The term includes transference, conveyance, or repair of a product." The emergency generators do not manufacture a product. Therefore, the requirements of 326 IAC 6-3 are not applicable to those units.

326 IAC 8-4-6 (Gasoline dispensing operations)

The gasoline dispensing facility (AST-01) with a storage capacity greater than 575 gallons was constructed after July 1, 1989. Therefore, the requirements of 326 IAC 8-4-6 are applicable. This

source is not located in Clark, Floyd, Lake or Porter Counties. Therefore, the requirements of 326 IAC 8-4-6(e) are not applicable. Pursuant to 326 IAC 8-4-6(b) and (c):

- (a) No owner or operator of a gasoline dispensing facility shall allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:
 - (1) A submerged fill pipe.
 - (2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
 - (3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.
- (b) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is connected between the transport and the storage tank and is operating according to manufacturer's specifications.

326 IAC 8-4-3 (Petroleum liquid storage facilities)

The three (3) tanks at this source, identified as AST-01, AST-02 and BULK-TANK, each have a capacity less than thirty-nine thousand (39,000) gallons. Therefore, the requirements of 326 IAC 8-4-3 are not applicable.

326 IAC 7.1-1 (Sulfur Dioxide Emission Limitations)

The requirements of 326 IAC 7-1.1 are applicable to the two (2) boilers, identified as Boiler 1 and Boiler 3, because the potential to emit SO₂ from each boiler is greater than twenty-five (25) tons per year. Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from each boiler when operating on fuel oil shall not exceed five-tenths (0.5) pound per million British thermal units heat input.

326 IAC 8-1-6 (New facilities; General reduction requirements)

Each facility at this source has potential VOC emissions less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-6-1 (Organic solvent emission limitations)

Some facilities at this source were constructed between October 7, 1974 and January 1, 1980. However, the potential VOC emissions are less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 8-6 are not applicable.

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

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

326 IAC 9-1 (Carbon Monoxide Emission Limits)

The waste incinerator has been removed from this source. Therefore, the source does not operate a petroleum refinery, ferrous metal smelter or waste incinerator and the requirements of 326 IAC 9 are no longer applicable.

326 IAC 10-4 (Nitrogen Oxides Budget Trading Program)

There are no large affected units or electricity generating units, with electricity for sale, at this source. Therefore, the requirements of 326 IAC 10-4 are not applicable.

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.

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

The two (2) boilers, identified as Boiler 1 and Boiler 3, have applicable compliance monitoring conditions as specified below:

Visible emission notations of the boiler stack exhausts (Stacks 1 and 3) shall be performed once per day during normal daylight operations when a boiler exhausting to the stack is operating on fuel oil. A trained employee shall record whether emissions are normal or abnormal. 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. 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 required for the boilers in order to ensure that they are operating properly at all times, in order to comply with 326 IAC 6-2, Particulate Emission Limitations for Sources of Indirect Heating.

Conclusion

The operation of this health care and residential facility shall be subject to the conditions of the **Minor Source Operating Permit 157-23833-00009**.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

**Company Name: Indiana Veterans' Home
Address City IN Zip: 3851 North River Road, West Lafayette, Indiana 47906
Approval No.: MSOP 157-23833-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 31, 2006**

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.

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

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10*	SO2	NOx	VOC	CO
Boiler 1	20.20	176.952	0.168	0.672	0.053	8.848	0.487	7.432
Boiler 2	12.10	105.996	0.101	0.403	0.032	5.300	0.291	4.452
Boiler 3	20.20	176.952	0.168	0.672	0.053	8.848	0.487	7.432
Total	52.50	460	0.437	1.75	0.138	23.0	1.26	19.3

HAPs - Organics

Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	0.0021	0.0012	0.0750	1.8000	0.0034
Potential Emission in tons/yr	0.0005	0.0003	0.017	0.414	0.0008

HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
	0.0005	0.0011	0.0014	0.0004	0.0021	
Potential Emission in tons/yr	0.0001	0.0003	0.0003	0.0001	0.0005	0.434

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

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil

Company Name: Indiana Veterans' Home
Address City IN Zip: 3851 North River Road, West Lafayette, Indiana 47906
Approval No.: MSOP 157-23833-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 31, 2006

S = Weight % Sulfur

0.500

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10	SO2	NOx	VOC	CO
	2.00	3.30	71.0 (142.0S)	20.0	0.340	5.00

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput kgals/yr	Potential Emission in tons/yr					
			PM*	PM10	SO2	NOx	VOC	CO
Boiler 1	20.2	1264	1.26	2.09	44.870	12.639	0.215	3.160
Boiler 3	20.2	1264	1.26	2.09	44.870	12.639	0.215	3.160
Total	40.4	2528	2.53	4.17	89.7	25.3	0.430	6.32

Emission Factor in lb/mmBtu	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
	0.000004	0.000003	0.000003	0.000003	0.000009
Potential Emission in tons/yr	0.0007	0.0005	0.0005	0.0005	0.0016

Emission Factor in lb/mmBtu	HAPs - Metals (continued)				
	Mercury	Manganese	Nickel	Selenium	Total HAPs
	0.000003	0.000006	0.000003	0.00002	
Potential Emission in tons/yr	0.0005	0.0011	0.0005	0.0027	0.009

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 1kgal 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

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

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations
Fuel Storage and Dispensing**

**Company Name: Indiana Veterans' Home
Address City IN Zip: 3851 North River Road, West Lafayette, Indiana 47906
Approval No.: MSOP 157-23833-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 31, 2006**

Unrestricted

Source	Standing Losses			Working Losses		
	Tank Size (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
AST-01 (Gasoline storage)	2000	303.58	0.152	2000000	2850	1.43
AST-02 (Diesel storage)	2000	0.29	0.0001	2000000	6.46	0.003
BULK-TANK (Diesel storage)	2000	0.29	0.000	2600000	8.10	0.004

Methodology

VOC emissions from Tanks 4.0.9d

Source	Vehicle Refueling			Spillage			Displacement					
	Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Gasoline Dispensing	11.0	2000000	22000	11.0	0.7	2000000	1400	0.70	1.1	2000000	2200	1.10
Diesel Dispensing	0.233	2000000	466	0.233	0.7	2000000	1400	0.70	0.023	2000000	46.6	0.02
Diesel Dispensing	0.233	2600000	606	0.303	0.7	2600000	1820	0.91	0.023	2600000	60.6	0.03

Methodology

VOC emission factors from AP-42, Chapter 5

Total VOC Emissions (tons/yr) 16.6

**Appendix A: Emissions Calculations
Totals**

**Company Name: Indiana Veterans' Home
Address City IN Zip: 3851 North River Road, West Lafayette, Indiana 47906
Approval No.: MSOP 157-23833-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 31, 2006**

Unrestricted Potential Emissions

	PM	PM10	SO2	NOx	VOC	CO	Total HAPs
Boiler 1	1.26	2.09	44.87	12.64	0.49	7.43	0.443
Boiler 2	0.10	0.40	0.03	5.30	0.29	4.45	
Boiler 3	1.26	2.09	44.87	12.64	0.49	7.43	
EU-400, EU-650, EU-900 and EU-980	0.65	0.65	2.66	17.68	0.68	4.01	0.011
AST-01, AST-02 and BULK-TANK	0.00	0.00	0.00	0.00	16.58	0.00	8.05
Overall total	3.27	5.22	92.4	48.3	18.5	23.3	8.51

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Acrolein
Boilers 1, 2 and 3	0.000	0.0003	0.017	0.414	0.001	0.002	0.001	0.001	0.001	0.000
EU-400, EU-650, EU-900 and EU-980	0.002	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.0002
AST-01, AST-02 and BULK-TANK	0.719	0.000	0.000	0.719	3.59	0.000	0.000	0.000	0.000	0.000
Overall total	0.721	0.0003	0.019	1.13	3.60	0.002	0.001	0.001	0.001	0.0002

	Nickel	Arsenic	Beryllium	Mercury	Selenium	Ethyl benzene	Naphthalene	Xylenes	Acetylaldehyde	Propylene
Boilers 1, 2 and 3	0.001	0.001	0.001	0.001	0.003	0.000	0.000	0.000	0.000	0.000
EU-400, EU-650, EU-900 and EU-980	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.005
AST-01, AST-02 and BULK-TANK	0.000	0.000	0.000	0.000	0.000	0.431	0.431	2.157	0.000	0.000
Overall total	0.001	0.001	0.001	0.001	0.003	0.431	0.431	2.16	0.001	0.005

HAP emissions include HAP emissions for the emergency diesel generators provided by the applicant and determined to be accurate.