



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: June 13, 2005
RE: Geo Pfau's Sons Company, Inc / 019-20929-00046
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, 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 1/10/05



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**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

**Geo. Pfau's Sons Company, Inc.
800 Wall Street
Jeffersonville, Indiana 47131**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Operation Permit No.: F019-20929-00046	
Original signed by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 13, 2005 Expiration Date: June 13, 2010

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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary industrial fats and oils processing plant.

Authorized individual:	Facilities Engineer
Source Address:	800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address:	800 Wall Street, Jeffersonville, Indiana 47131
General Source Phone:	(812) 283-0765
SIC Code:	2077
County Location:	Clark
Source Location Status:	Nonattainment for PM2.5 and Ozone under 8-hour standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) dual fuel fired boiler, identified as Boiler #1, constructed in 1954 and to be modified in 2005, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 17.87 MMBtu/hr, and exhausting through stack 1.
- (b) One (1) dual fuel fired boiler, identified as Boiler #2, constructed in 1963 and to be modified in 2005, using both natural gas and No. 2 fuel oil fuels, with a maximum heat input capacity of 6.89 MMBtu/hr, and exhausting through stack 1.
- (c) One (1) dual fuel fired boiler, identified as Boiler #3, constructed in 1995, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting through stack 2.
- (d) One (1) dual fuel fired boiler, identified as Boiler #4, to be constructed in 2005, using natural gas, No. 2 fuel oil, and process emissions from the reactor system as fuels, with a maximum heat input capacity of 12.3 MMBtu/hr, and exhausting through stack 3.
- (e) One (1) reactor system, to be constructed in 2005, with a maximum capacity of 7,500 gallons per batch and a maximum process time of 16 hours per batch, controlled by Boiler #4, and exhausting through stack 3. This system consists of two (2) reactors each with mixer (for fat, methanol, and catalyst), condenser, receiver, and inter-connecting process, utility piping, and associated instrumentation.

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

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including the following:

- (1) Two (2) ceiling mounted heaters, each with a maximum heat input capacity of 0.2 MMBtu/hr.
 - (2) Six (6) Carrier HVAC units, each with a maximum heat input capacity of 0.1 MMBtu/hr.
 - (3) Four (4) Whirlpool furnaces, each with a maximum heat input capacity of 0.12 MMBtu/hr.
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) 250 gallon diesel fuel tank.
 - (c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
 - (d) Equipment used exclusively for filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
 - (e) Machining where an aqueous cutting coolant continuously floods the machining interface.
 - (f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
 - (g) Noncontact cooling tower systems, including a forced and induced draft cooling tower system not regulated under a NESHAP.
 - (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
 - (i) Paved roads and parking lots with public access.
 - (j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
 - (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
 - (l) Filter or coalescer media changeout.
 - (m) A laboratory as defined in 326 IAC 2-7-1(21)(D).
 - (n) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
 - (1) One (1) fresh methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (2) One (1) spent methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (3) One (1) tallow storage tank, identified as Extra Tank #1, with a maximum capacity of 14,000 gallons.

- (4) One (1) storage tank, identified as Extra Tank #2, with a maximum capacity of 10,000 gallons.
- (5) One (1) glycerine storage tank, with a maximum capacity of 14,000 gallons.
- (6) One (1) run tank, with a maximum capacity of 14,000 gallons.
- (7) One (1) water pretreatment tank, with a maximum capacity of 47,000 gallons.
- (8) One (1) No. 2 fuel oil storage tank, identified as H Tank, with a maximum capacity of 8,012 gallons.
- (9) One (1) No. 2 fuel oil storage tank, identified as 11 out Tank, with a maximum capacity of 7,520 gallons.

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

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

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

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

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

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

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

B.4 Enforceability [326 IAC 2-8-6]

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

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

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

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "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.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This

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

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

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

- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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.13 Emergency Provisions [326 IAC 2-8-12]

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

IDEM:

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

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

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

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

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

- (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

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

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

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

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

- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

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

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

- (b) **Emission Trades [326 IAC 2-8-15(c)]**
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(d)]**
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction work is suspended for a continuous period of one (1) year or more.

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

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

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

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2][326 IAC 9-1-2(3)]

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 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

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

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

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "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 the "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 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment

and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision 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 [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.14 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.

The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR 60 requirement.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

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

the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be 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 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) dual fuel fired boiler, identified as Boiler #1, constructed in 1954 and to be modified in 2005, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 17.87 MMBtu/hr, and exhausting through stack 1.
- (b) One (1) dual fuel fired boiler, identified as Boiler #2, constructed in 1963 and to be modified in 2005, using both natural gas and No. 2 fuel oil fuels, with a maximum heat input capacity of 6.89 MMBtu/hr, and exhausting through stack 1.
- (c) One (1) dual fuel fired boiler, identified as Boiler #3, constructed in 1995, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting through stack 2.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Sulfur Dioxide Emission Limits [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP), the Permittee shall comply with the following:

- (a) The total No. 2 fuel oil usage in Boilers #1 through #3 and Boiler #4 in Section D.2 shall not exceed 2,790 kilogallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The sulfur content of the No. 2 fuel oil used shall not exceed 0.5% by weight.

This is equivalent to 99.0 tons per year of SO₂ emissions from the boilers. Combined with the SO₂ emissions from the insignificant activities, the SO₂ emissions from the entire source are limited to less than 100 tons/yr. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) are not applicable.

D.1.2 PM Emissions [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(d) (PM Emissions for Sources of Indirect Heating), particulate emissions from Boilers #1 and #2, which were existing and in operation on or before June 8, 1972, shall not exceed 0.8 lbs/MMBtu.

D.1.3 PM Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (PM Emissions for Sources of Indirect Heating), PM emissions from Boiler #3 shall not exceed 0.39 lbs/MMBtu.

D.1.4 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Boilers #1 and #3, except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.1.5 NSPS Requirements [40 CFR 60, Subpart Dc] [326 IAC 12-1]

- (a) Pursuant to 40 CFR 60.42c(d), the sulfur content of the fuel oil combusted in Boilers #1 and #3 shall not exceed five-tenths percent (0.5%) by weight. Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.
- (b) Pursuant to 40 CFR 60.48c(g), the Permittee shall maintain daily records of the amount and type of fuel burned at Boilers #1 and #3.

D.1.6 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from each of the Boilers #1 and #3 shall be limited to 0.5 pounds per million Btu heat input when burning No. 2 fuel oil.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

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

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from Boilers #1, #2, and #3 shall be performed once per day during normal daylight operations while burning No. 2 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1(a), the Permittee shall maintain monthly records of the amount of No. 2 fuel oil burned in Boilers #1, #2, and #3.
- (b) To document compliance with Conditions D.1.1(b), D.1.5(a), and D.1.6, the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40

CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

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

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

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.

- (c) To document compliance with Condition D.1.5(b), the Permittee shall maintain daily records of the amount and type of fuel burned at Boilers #1 and #3.
- (d) To document compliance with Condition D.1.9, the Permittee shall maintain records of daily visible emission notations of the boiler stack exhausts when burning fuel oil.
- (e) To document compliance with Condition D.1.7, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

- (a) For Boilers #1 and #3, the natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or 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 an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (b) A quarterly summary of the information to document compliance with Condition D.1.1(a) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (d) One (1) dual fuel fired boiler, identified as Boiler #4, to be constructed in 2005, using natural gas, No. 2 fuel oil, and process emissions from the reactor system as fuels, with a maximum heat input capacity of 12.3 MMBtu/hr, and exhausting through stack 3.
- (e) One (1) reactor system, to be constructed in 2005, with a maximum capacity of 7,500 gallons per batch and a maximum process time of 16 hours per batch, controlled by Boiler #4, and exhausting through stack 3. This system consists of two (2) reactors each with mixer (for fat, methanol, and catalyst), condenser, receiver, and inter-connecting process, utility piping, and associated instrumentation.

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.2.1 Permit No Defense

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

D.2.2 Federally Enforceable State Operating Permit [326 IAC 2-8]

The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application.

Effective Date of the Permit

D.2.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.2.4 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.5 Sulfur Dioxide Emission Limits [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP), the Permittee shall comply with the following:

- (a) The total No. 2 fuel oil usage in Boilers #1 through #3 (in Section D.1) and Boiler #4 shall not exceed 2,790 kilogallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The sulfur content of the No. 2 fuel oil used shall not exceed 0.5% by weight.

Combined with the SO₂ emissions from the insignificant activities, the SO₂ emissions from the entire source are limited to less than 100 tons/yr. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) are not applicable.

D.2.6 VOC and HAP Limits [326 IAC 2-8] [326 IAC 2-3]

Pursuant to 326 IAC 2-8 (FESOP), the Permittee shall comply with the following:

- (a) The VOC emissions from the reactor system after Boiler #4 shall not exceed 2.45 lbs/hr.
- (b) The methanol emissions from the reactor system shall not exceed 2.45 lbs/hr.
- (c) The operating hours of the reactor system shall not exceed 6,736 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

Combined with the VOC and HAP emissions from the insignificant activities, the VOC emissions from the entire source are each limited to less than 100 tons/yr and the HAP emissions from the entire source are limited to less than 10 tons/yr for a single HAP and less than 25 tons/yr for total HAPs. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) and 326 IAC 2-3 (Emission Offset) are not applicable

D.2.7 VOC Emissions [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (BACT), the Permittee shall control the VOC emissions from the reactor system using the Best Available Control Technology (BACT), which has been determined to be the following:

- (a) The VOC emissions from the reactor system shall be controlled by Boiler #4.
- (b) The overall control efficiency (destruction efficiency times capture efficiency) for Boiler #4 shall be at least 95%.
- (c) The VOC emissions from the reactor system after Boiler #4 shall not exceed 2.45 lbs/hr.

D.2.8 PM Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (PM Emissions for Sources of Indirect Heating), PM emissions from Boiler #4 shall not exceed 0.37 lbs/MMBtu.

D.2.9 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Boiler #4, except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.2.10 NSPS Requirements [40 CFR 60, Subpart Dc] [326 IAC 12-1]

- (a) Pursuant to 40 CFR 60.42c(d), the sulfur content of the fuel oil combusted in Boiler #4 shall not exceed five-tenths percent (0.5%) by weight. Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.
- (b) Pursuant to 40 CFR 60.48c(g), the Permittee shall maintain daily records of the amount and type of fuel burned at Boiler #4.

D.2.11 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.2.12 VOC and HAP Control

In order to comply with Conditions D.2.6 and D.2.7, Boiler #4 shall be in operation and control emissions from the reactor system all times that the reactor system is in operation.

D.2.13 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.2.6 and D.2.7, the Permittee shall perform VOC emission tests (including emission rate, destruction efficiency, and capture efficiency) for Boiler #4 and the reactor system within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.2.14 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

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

D.2.15 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from Boiler #4 shall be performed once per day during normal daylight operations while using No. 2 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.16 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5(a), the Permittee shall maintain monthly records of the amount of No. 2 fuel oil burned in Boiler #4.

- (b) To document compliance with Conditions D.2.5(b) and D.2.9(a), the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

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

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

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.

- (c) To document compliance with Condition D.2.6(c), the Permittee shall maintain records of monthly operating hours for the reactor system.
- (d) To document compliance with Condition D.2.10(b), the Permittee shall maintain daily records the amount and type of fuel burned at Boiler #4.
- (e) To document compliance with Condition D.2.15, the Permittee shall maintain records of daily visible emission notations of the boiler stack exhaust when burning fuel oil.
- (f) To document compliance with Condition D.2.11, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.17 Reporting Requirements

- (a) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or 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 an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (b) A quarterly summary of the information to document compliance with Conditions D.2.5(a) and D.2.6(c) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) 250 gallon diesel fuel tank.
- (n) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
 - (1) One (1) fresh methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (2) One (1) spent methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (8) One (1) No. 2 fuel oil storage tank, identified as H Tank, with a maximum capacity of 8,012 gallons.
 - (9) One (1) No. 2 fuel oil storage tank, identified as 11 out Tank, with a maximum capacity of 7,520 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 2-8-4(1)]

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-9]

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), the VOC storage tanks at this source are subject to the reporting and record keeping requirements of 326 IAC 8-9-6(a) and (b). The Permittee shall maintain records for the life of the vessel for the following information:

- (a) The vessel identification number.
- (b) The vessel dimensions.
- (c) The vessel capacity.

Record Keeping and Reporting Requirements [326 IAC 2-8-6(3)] [326 IAC 2-8-16]

D.3.2 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records for the life of the source in accordance with (1) through (2) below:
 - (1) The dimension of the storage vessel; and
 - (2) An analysis showing the capacity of the storage vessel.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including the following:
 - (1) Two (2) ceiling mounted heaters, each with a maximum heat input capacity of 0.2 MMBtu/hr.
 - (2) Six (6) Carrier HVAC units, each with a maximum heat input capacity of 0.1 MMBtu/hr.
 - (3) Four (4) Whirlpool furnaces, each with a maximum heat input capacity of 0.12 MMBtu/hr.
- (c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (d) Equipment used exclusively for filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (e) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (g) Noncontact cooling tower systems, including a forced and induced draft cooling tower system not regulated under a NESHAP.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (l) Filter or coalescer media changeout.
- (m) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (n) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
 - (3) One (1) storage tank, identified as Extra Tank #1, with a maximum capacity of 14,000 gallons.
 - (4) One (1) storage tank, identified as Extra Tank #2, with a maximum capacity of 10,000 gallons.

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities (continued)

- (5) One (1) glycerine storage tank, with a maximum capacity of 14,000 gallons.
- (6) One (1) run tank, with a maximum capacity of 14,000 gallons.
- (7) One (1) water pretreatment tank, with a maximum capacity of 47,000 gallons.

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

There are no specific state or federal rules applicable to these emission units.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Geo. Pfau's Sons Company, Inc.
Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
FESOP No.: F019-20929-00046

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204
Phone: 317-233-5674
Fax: 317-233-5967**

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

Source Name: Geo. Pfau's Sons Company, Inc.
Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
FESOP No.: F019-20929-00046

This form consists of 2 pages

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- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI- ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Geo. Pfau's Sons Company, Inc.
Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
FESOP No.: F019-20929-00046

<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: _____
Date: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Geo. Pfau's Sons Company, Inc.
Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
FESOP No.: F019-20929-00046
Facility: Boilers #1, #2, #3, and #4
Parameter: Total No. 2 fuel oil usage
Limit: Less than 2,790 kgal per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Geo. Pfau's Sons Company, Inc.
Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
FESOP No.: F019-20929-00046
Facility: Reactor System
Parameter: Operating Hours
Limit: Less than 6,736 hours per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

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

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

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

Attach a signed certification to complete this report.

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

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

Source Name: Geo. Pfau's Sons Company, Inc.
 Source Address: 800 Wall Street, Jeffersonville, Indiana 47131
 Mailing Address: 800 Wall Street, Jeffersonville, Indiana 47131
 FESOP No.: F019-20929-00046

Months: _____ to _____ Year: _____

Page 1 of 2

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name: Geo. Pfau's Sons Company, Inc.
Source Location: 800 Wall Street, Jeffersonville, Indiana 47131
County: Clark
SIC Code: 2077
Operation Permit No.: F019-20929-00046
Permit Reviewer: ERG/YC

The Office of Air Quality (OAQ) has reviewed a FESOP application from Geo. Pfau's Sons Company, Inc. relating to the operation of an industrial fats and oils processing plant.

History

Geo. Pfau's Sons Company, Inc. is an existing industrial fats and oils processing plant. The Permittee has two (2) natural gas fired boilers (Boilers #1 and #2) and one dual fuel fired boiler (Boiler #3). In the application received on March 9, 2005, the Permittee requested permission to construct a reactor system with a new dual fuel fired boiler (Boiler #4) as control. In addition, the Permittee requested permission to modify the existing natural gas fired boilers #1 and #2 to allow No. 2 fuel oil to be burned in these units. After adding the proposed emission units, the potential to emit of this source will be greater than the Part 70 major source thresholds. The Permittee has elected to comply with the FESOP limitations to limit the emissions from the entire source to less than the Part 70 major source thresholds. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) will not be applicable to this source.

Permitted Emission Units and Pollution Control Equipment

- (c) One (1) dual fuel fired boiler, identified as Boiler #3, constructed in 1995, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 25.2 MMBtu/hr, and exhausting through stack 2.

New and Modified Emission Units and Pollution Control Equipment

The application includes information relating to the prior approval for the construction and operation of the new equipment and the modification of existing units listed as below, pursuant to 326 IAC 2-8-4(11):

- (a) One (1) dual fuel fired boiler, identified as Boiler #1, constructed in 1954 and to be modified in 2005, using both natural gas and No. 2 fuel oil as fuels, with a maximum heat input capacity of 18.87 MMBtu/hr, and exhausting through stack 1.
- (b) One (1) dual fuel fired boiler, identified as Boiler #2, constructed in 1963 and to be modified in 2005, using both natural gas and No. 2 fuel oil fuels, with a maximum heat input capacity of 6.89 MMBtu/hr, and exhausting through stack 1.

- (d) One (1) dual fuel fired boiler, identified as Boiler #4, to be constructed in 2005, using natural gas, No. 2 fuel oil, and process emissions from the reactor system as fuels, with a maximum heat input capacity of 12.3 MMBtu/hr, and exhausting through stack 3.
- (e) One (1) reactor system, to be constructed in 2005, with a maximum capacity of 7,500 gallons per batch and a maximum process time of 16 hours per batch, controlled by Boiler #4, and exhausting through stack 3. This system consists of two (2) reactors each with mixer (for fat, methanol, and catalyst), condenser, receiver, and inter-connecting process, utility piping, and associated instrumentation.

Note: Boilers #1 and #2 were constructed to use only natural gas. In the FESOP application, the Permittee proposed to make modifications to these boilers which will allow both natural gas and No. 2 fuel oil combustion in these boilers.

Insignificant Activities

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including the following:
 - (1) Two (2) ceiling mounted heaters, each with a maximum heat input capacity of 0.2 MMBtu/hr.
 - (2) Six (6) Carrier HVAC units, each with a maximum heat input capacity of 0.1 MMBtu/hr.
 - (3) Four (4) Whirlpool furnaces, each with a maximum heat input capacity of 0.12 MMBtu/hr.
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) 250 gallon diesel fuel tank.
- (c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (d) Equipment used exclusively for filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (e) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (g) Noncontact cooling tower systems, including a forced and induced draft cooling tower system not regulated under a NESHAP.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Paved roads and parking lots with public access.
- (j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (l) Filter or coalescer media changeout.

- (m) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (n) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
 - (1) One (1) fresh methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (2) One (1) spent methanol tank, to be constructed in 2005, with a maximum capacity of 10,000 gallons, and controlled by Boiler #4.
 - (3) One (1) tallow storage tank, identified as Extra Tank #1, with a maximum capacity of 14,000 gallons.
 - (4) One (1) storage tank, identified as Extra Tank #2, with a maximum capacity of 10,000 gallons.
 - (5) One (1) glycerine storage tank, with a maximum capacity of 14,000 gallons.
 - (6) One (1) run tank, with a maximum capacity of 14,000 gallons.
 - (7) One (1) water pretreatment tank, with a maximum capacity of 47,000 gallons.
 - (8) One (1) No. 2 fuel oil storage tank, identified as H Tank, with a maximum capacity of 8,012 gallons.
 - (9) One (1) No. 2 fuel oil storage tank, identified as 11 out Tank, with a maximum capacity of 7,520 gallons.

Existing Approvals

The following previous air approvals have been issued to this source:

- (a) CP #019-3397-00046, issued on February 8, 1994.
- (b) CP #019-4787-00046, issued on December 14, 1995.
- (c) Amendment #019-5291-00046, issued on March 12, 1996.

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

The oxidation polymerization batch process, which was permitted in CP #019-3397-00046 (issued on February 8, 1994) has been removed from this source. Therefore, this unit and the associated requirements will not be included in this FESOP.

Enforcement Issue

- (a) IDEM is aware that this source was in existence prior to December 25, 1998 and was subject to 326 IAC 2-6.1(MSOP). The Permittee did not submit an operating permit application before December 25, 1999 as required in 326 IAC 2-6.1-3(c).
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.

Recommendation

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

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

An administratively complete FESOP application for the purposes of this review was received on March 9, 2005. Additional information was received on March 17, 2005, March 21, 2005, March 22, 2005, March 23, 2005, March 25, 2005, April 7, 2005, and April 21, 2005.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 5). The potential to emit VOC/HAP of all the storage tanks is 1.72 tons/yr, which was calculated using EPA TANKS 4.0 software. The emissions calculations for storage tanks were provided by the applicant and have been verified and found to be accurate and correct.

Potential to Emit

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	4.95
PM-10	4.95
SO ₂	138
VOC	219
CO	23.5
NO _x	39.7

HAPs	Potential to Emit (tons/yr)
Methanol	217
Total	217

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC and SO₂ are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 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.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Boilers #1 through #3	3.13	3.13	Less than 99.0	1.20	18.4	31.3	Negligible
Boiler #4	0.77	0.77		Less than 8.25	4.53	7.70	Less than 8.25 for a single HAP
Reactor System	-	-	-		-	-	
NG Fired Space Heaters (Insignificant)	0.05	0.05	Negligible	0.04	0.54	0.65	Negligible
Tanks (Insignificant)	-	-	-	1.72	-	-	1.72
Other Insignificant Activities	Less than 1.0	Less than 1.0	-	Less than 1.0	-	-	Negligible
Total PTE of the Entire Source	Less than 4.95	Less than 4.95	Less than 99.0	Less than 12.2	23.5	39.7	Less than 9.97 for a single HAP
Title V Thresholds	NA	100	100	100	100	100	10 for a single HAP and 25 for total HAPs

Note: "-" pollutant not emitted by the facility.

County Attainment Status

The source is located in Clark County.

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

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Clark County has been designated as basic nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (a) Clark County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions pursuant to the Non-attainment New Source Review requirements.
- (c) Clark County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD and Emission Offset Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	4.95
PM-10	4.95
SO ₂	Less than 99.0
VOC	Less than 12.2
CO	23.5
NO _x	39.7
Combination HAPs	Less than 9.97

- (a) This existing source is not an Emission Offset major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater.
- (b) This existing source is not a PSD major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.

Federal Rule Applicability

- (a) Boilers #3 and #4 have maximum heat input capacities greater than 10 MMBtu/hr and were constructed after June 9, 1989. Therefore, these boilers are subject to the requirements of the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam generating Units (326 IAC 12, 40 CFR 60.40c-48c, Subpart Dc).

Boiler #2 has a maximum heat input capacity less than 10 MMBtu/hr. Therefore, Boiler #2 is not subject to this NSPS. Boiler #1 was constructed before June 9, 1989, has a maximum heat input capacity greater than 10 MMBtu/hr, and will be modified in 2005 to use No. 2 fuel as an alternative fuel. Boiler #1 will be subject to the requirements of this NSPS after the modification. The modification to Boiler #1 in 2005 will increase the SO₂ emitted into the atmosphere to an amount to which a standard applies. Therefore, the changes to Boiler #1 are considered a modification as defined in 40 CFR 60.2.

Only natural gas and No. 2 fuel oil are combusted in Boilers #1 and #3. Boiler #4 uses natural gas, No. 2 fuel oil, and process emissions as fuels. Pursuant to 40 CFR 60.42c(d), the sulfur content of the fuel oil burned in Boilers #1, #3, and #4 shall not exceed five-tenths percent (0.5%) by weight. This fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction. The source must demonstrate compliance by either:

- (1) Providing vendor analysis of fuel delivered with 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. Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. If a partially empty fuel tank is refilled, a new sample and analysis would be required after filling.

Pursuant to 40 CFR 60.48c(g), the Permittee is also required to maintain daily records of the amount and type of fuel burned. If the source would like to change the frequency of record keeping (for example, from daily to monthly), then the source must send a letter requesting this change to the following address:

George Czerniak
c/o U.S. Environmental Protection Agency, Region V
Air and Radiation Division

Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

The request should reference the NSPS requirement and the EPA memorandum dated July 11, 2003 from Jeff KenKnight to Anthony E. Ketchum, which provides guidance on obtaining approval for alternative monitoring plans.

- (b) Each of the tanks at this source which store VOC-containing liquids has a capacity less than 75 cubic meters (19,813 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are not applicable to these tanks. The water pretreatment tank has a capacity greater than 75 cubic meters (19,813 gallons). However, the water pretreatment tank is not used to store VOC-containing liquids. Therefore, the water pretreatment tank at this source is not subject to the requirements of NSPS, Subpart Kb.
- (c) This source does not manufacture any synthetic organic chemicals. Therefore, this fats and oils processing plant is not subject to the requirements of New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (326 IAC 12, 40 CFR 60.480 - 489, Subpart VV).
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.
- (e) The HAP emissions from this source will be limited to less than 10 tons/yr for a single HAP and less than 25 tons/yr for total HAPs. Therefore, the National Emission Standards for Hazardous Air Pollutants - Industrial/Commercial/Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD) are not applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-3 (Emission Offset)

This source is located in Clark County, which was designated as a nonattainment area for PM_{2.5} and the 8-hour Ozone Standard. The potential to emit PM_{2.5} and NO_x of this source is less than 100 tons/yr. The Permittee has elected to comply with FESOP limits to limit the VOC emissions from this source to less than 100 tons/yr (see the discussion of 326 IAC 2-8-4 below). Therefore, this existing source is an Emission Offset minor source.

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

The source was constructed in 1954 and modified in 1963, 1995, and 2005 (permitted in this FESOP). This source is not in 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and the potential to emit of PM, PM₁₀, SO₂, and CO from the entire source is each less than 250 tons/yr before control. Therefore, this existing source is a PSD minor source.

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

The source was constructed in 1954 and modified in 1963, 1995, and 2005 (permitted in this FESOP). The potential to emit HAPs of the proposed reactor system is greater than 10 tons/yr for a single HAP and greater than 25 tons/yr for total HAP. The Permittee has elected to comply with FESOP limits to limit the HAP emissions from this source to less than HAP major source thresholds (see the discussion of 326 IAC 2-8-4 below). Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 2-8-4 (FESOP)

The potential to emit VOC and SO₂ before control from this source is greater than 100 tons/yr and the potential to emit of all other criteria pollutants is less than 100 tons/yr. In addition, with the proposed new emission units, the potential to emit HAP from this source will be greater than 10 tons/yr for a single HAP and greater than 25 tons/yr for total HAP. In order to make the

requirements of 326 IAC 2-7 (Part 70 Program) not applicable, the Permittee has proposed the following FESOP limits:

- (a) The total No. 2 fuel oil usage in Boilers #1 through #4 shall not exceed 2,790 kilogallons (kgal) per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The sulfur content of the No. 2 fuel oil burned in Boilers #1 through #4 shall not exceed 0.5% by weight.
- (c) The VOC emissions from the reactor system shall not exceed 2.45 lbs/hr.
- (d) The methanol emissions from the reactor system shall not exceed 2.45 lbs/hr.
- (e) The operating hours of the reactor system shall not exceed 6,736 hours (=16 hour/batch x 421 batches/yr) per twelve (12) consecutive month period with compliance determined at the end of each month. Combined with the VOC/HAP emission rate limit, this is equivalent to 8.25 tons/yr of VOC/HAP emissions from the reactor system.

The emission limitations above are equivalent to 99.0 tons/yr of SO₂ emissions and 8.25 tons/yr of VOC emissions. Combined with the VOC and SO₂ emissions from the insignificant activities, the VOC and SO₂ emissions from the entire source are limited to less than 100 tons/yr.

Combined with the HAP emissions from the boilers and the insignificant units, the HAP emissions from the entire source are limited to less than 10 tons/yr for a single HAP and less than 25 tons/yr for total HAPs. Therefore, the requirements of 326 IAC 2-7 (Part 70 Program) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Clark County and is not required to operate under a Part 70 permit. Therefore, the requirements of 326 IAC 2-6 are not applicable to this source.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

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

State Rule Applicability – Boilers #1 through #4

326 IAC 6-2-3 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-3, boilers existing and in operation before September 21, 1983 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 1.50 \text{ lbs/MMBtu}$$

Where

C = max ground level concentration (= 50 $\mu\text{m}/\text{m}^3$)
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (= 17.87 + 6.89 = 24.76 MMBtu/hr)
N = number of stacks = 2
a = plume rise factor = 0.67
h = stack height (ft) = 45 ft

Pursuant to 326 IAC 6-2-3(d), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall not exceed 0.8 lbs/MMBtu. Since both Boilers #1 and #2 were in operation before 1972, particulate emission limits for Boilers #1 and #2 are 0.8 lbs/MMBtu.

326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

Before 1983, Boiler #1 (17.87 MMBtu/hr) and Boiler #2 (6.89 MMBtu/hr) were in operation. Boiler #3 (25.2MMBtu/hr) was constructed in 1995. The emission rate limit for Boiler #3 calculated from the equation above equals:

$$Pt = \frac{1.09}{(17.87 + 6.89 + 25.2)^{0.26}} = 0.39 \text{ lbs/MMBtu}$$

Boiler #4 (12.3 MMBtu/hr) will be constructed in 2005. The emission rate limit for Boiler #4 calculated from the equation above equals:

$$Pt = \frac{1.09}{(17.87 + 6.89 + 25.2 + 12.3)^{0.26}} = 0.37 \text{ lbs/MMBtu}$$

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

The potential to emit SO₂ from each of the Boilers #1 and #3 is greater than 25 tons per year. Therefore, Boilers #1 and #3 are subject to the requirements of 326 IAC 7-1.1-2 (SO₂ Emission Limitations). Pursuant to 326 IAC 7-1.1-2, SO₂ emissions from each of the Boilers #1 and #3 shall be limited to 0.5 pounds per million Btu heat input, when burning No. 2 fuel oil. Each of the Boilers #2 and #4 does not have potential to emit SO₂ greater than 25 tons/yr. Therefore, Boilers #2 and #4 are not subject to the requirements of 326 IAC 7-1.1-2.

State Rule Applicability – Reactor System

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

The reactor system will be constructed after January 1, 1980 and has potential VOC emissions greater than 25 tons per year. In addition, this unit is not subject to other rules in 326 IAC 8. Therefore, this unit is subject to 326 IAC 8-1-6 and the Permittee is required to control VOC emissions with the Best Available Control Technologies (BACT). According to the BACT analysis in Appendix B, the BACT for this process has been determined to be the following:

- (a) The VOC emissions from the reactor system shall be controlled by Boiler #4.
- (b) The overall control efficiency (destruction efficiency times capture efficiency) for Boiler #4 shall be at least 95%.
- (c) The VOC emissions from the reactor system after Boiler #4 shall not exceed 2.45 lbs/hr.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is located in Clark County. However, the potential to emit VOC from this source will be limited to less than 100 tons/yr. Therefore, the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) are not applicable.

State Rule Applicability – Storage Tanks (Insignificant)

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

This source is located in Clark County. The VOC storage tanks at this source, including the fuel oil storage tanks, the fresh methanol tank, and the spent methanol tank have capacities less than 39,000 gallons. Pursuant to 326 IAC 8-9-1(b), the VOC storage tanks at this source are subject to the reporting and record keeping requirements of 326 IAC 8-9-6(a) and (b), which have the following requirements:

- (a) The Permittee of each vessel shall maintain records for the life of the vessel for the following information:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.
- (b) A report containing the information described in (a) shall be submitted to IDEM, OAQ.

326 IAC 12 (NSPS Requirements)

The fresh methanol tank, spent methanol tank, Extra Tank #2, and No. 2 fuel oil storage tanks each have storage capacities less than 40 cubic meters (10,569 gallons). Therefore, these tanks are not subject to the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 (40 CFR 60.110b-117b, Subpart Kb as published on July 1, 2002).

The Extra Tank #1 glycerine storage tank, run storage tank, and the water pretreatment tank are not used to store volatile organic liquids and therefore, are not subject to the requirements of 326 IAC 12 and the July 1, 2002 version of 40 CFR 60, Subpart Kb.

Testing Requirements

In order to demonstrate compliance with the FESOP limits, the Permittee shall perform the VOC emission rate, destruction efficiency, and capture efficiency tests for Boiler #4 and reactor system within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup of the reactor system. Note that the VOC emissions from the reactor system include the methanol emissions because methanol is a VOC. Therefore, stack testing for methanol is not necessary for the reactor system because the VOC stack test results will be sufficient to demonstrate compliance with both VOC and methanol limits.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a 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 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous

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

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

1. Boilers #1 through #4 have applicable compliance monitoring conditions as specified below:

Visible emission notations of the boiler stack exhausts shall be performed once per day during normal daylight operation while using No. 2 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

These monitoring conditions are necessary because Boilers #1 through #4 must operate properly to ensure compliance with 326 IAC 6-2-3 (PM Emissions for Sources of Indirect Heating) and 326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating).

Conclusion

The operation of this industrial fats and oils processing plant shall be subject to the conditions of FESOP 019-20929-00046.

**Appendix A: Emission Calculations
VOC and HAP Emissions
From the Reactor System**

**Company Name: Geo. Pfau's Sons Company, Inc.
Address: 800 Wall Street, Jeffersonville, IN 47131
FESOP #: 019-20929-00046
Reviewer: ERG/YC
Date: April 21, 2005**

1. Potential to Emit VOC/HAP before Control:

Process	VOC/HAP Emission Factor* (lbs Methanol/batch)	Batch Process Time (hr/batch)	Max. Process Rate (batches/yr)	PTE of VOC/HAP before Control (tons/yr)
Distillation	762	16.0	548	209
Displacement	21.9	16.0	548	6.00
Total				215

* Emission factors are provided by the vendor. Methanol is the only VOC emitted from this process and is also a federally regulated HAP.

** This unit will be controlled by a boiler.

METHODOLOGY

Max. Process Rate (batches/yr) = 8760 hr/yr / Process Time for Each Batch (hr/batch)

PTE of VOC/HAP before Control (tons/yr) = Max. Process Rate (batches/yr) x VOC/HAP Emission Factor (lbs/batch) x 1 ton/2000 lbs

2. Potential to Emit VOC/HAP after Control:

This reactor system will be controlled by Boiler #4, which has a control efficiency of 95%.

Process	VOC/HAP Emission Limit* (lbs/hr)	Operating Hour Limit* (hrs/yr)	PTE of VOC/HAP after Control (tons/yr)
Reactor	2.45	6,737	8.25
Total			8.25

* These limits are proposed by the source and will be included in the permit.

METHODOLOGY

PTE of VOC/HAP after Control (tons/yr) = VOC/HAP Emission Limit (lbs/hr) x Operating Hour Limit (hour/yr) x 1 ton/2000 lbs

**Appendix A: Emission Calculations
From Boilers #1 through #3**

**Company Name: Geo. Pfau's Sons Company, Inc.
Address: 800 Wall Street, Jeffersonville, IN 47131
FESOP #: 019-20929-00046
Reviewer: ERG/YC
Date: April 21, 2005**

1. PTE of the Boilers While Burning Natural Gas:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
50.0 (3 units total)	437.6

Emission Factor in lbs/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
Potential to Emit in tons/yr	1.66	1.66	0.13	21.9	1.20	18.4

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

**Emission Factors for NO_x: Uncontrolled = 100 lbs/MMCF.

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

Methodology

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

PTE (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

2. PTE of the Boilers While Burning Back-up No. 2 Fuel Oil:

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
50.0 (3 units total)	3128.6	0.5

Emission Factor in lbs/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	2.0	2.0	71 (142.0 S)	20.0	0.34	5.0
Potential to Emit in tons/yr	3.13	3.13	111	31.3	0.53	7.82

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

Emission factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3, Supplement E 9/98 (see errata file).

Methodology

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

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

PTE (tons/yr) = Potential Throughput (kgals/yr) x Emission Factor (lbs/kgal) x 1 ton/2000 lbs

3. PTE of the Boilers (Worst Case Scenarios):

Pollutant	PM	PM10	SO ₂	NO _x	VOC	CO
*PTE (tons/yr)	3.13	3.13	111	31.3	1.20	18.4

*PTE of these units are the worst case scenario between burning natural gas or No. 2 fuel oil.

**Appendix A: Emission Calculations
From Boiler #4**

**Company Name: Geo. Pfau's Sons Company, Inc.
Address: 800 Wall Street, Jeffersonville, IN 47131
FESOP #: 019-20929-00046
Reviewer: ERG/YC
Date: April 21, 2005**

1. PTE of the Boiler #4 While Burning Natural Gas:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
12.3	107.7

Emission Factor in lbs/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
Potential to Emit in tons/yr	0.41	0.41	0.03	5.39	0.30	4.53

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

**Emission Factors for NO_x: Uncontrolled = 100 lbs/MMCF.

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

Methodology

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

PTE (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

2. PTE of the Boiler #4 While Burning Back-up No. 2 Fuel Oil:

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
12.3	769.6	0.5

Emission Factor in lbs/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	2.0	2.0	71 (142.0 S)	20.0	0.34	5.0
Potential to Emit in tons/yr	0.77	0.77	27.3	7.70	0.13	1.92

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

Emission factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3, Supplement E 9/98 (see errata file).

Methodology

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

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

PTE (tons/yr) = Potential Throughput (kgals/yr) x Emission Factor (lbs/kgal) x 1 ton/2000 lbs

3. PTE of the Boiler #4 (Worst Case Scenarios):

Pollutant	PM	PM10	SO ₂	NO _x	VOC	CO
*PTE (tons/yr)	0.77	0.77	27.3	7.70	0.30	4.53

*PTE of these units are the worst case scenario between burning natural gas or No. 2 fuel oil.

**Appendix A: Emission Calculations
Commercial/Institutional/Residential Combustors (< 100 MMBtu/hr)
#2 Fuel Oil Combustion with Fuel Usage Limit
From the Boilers #1 through #4**

**Company Name: Geo. Pfau's Sons Company, Inc.
Address: 800 Wall Street, Jeffersonville, IN 47131
FESOP #: 019-20929-00046
Reviewer: ERG/YC
Date: April 21, 2005**

Heat Input Capacity
MMBtu/hr

Fuel Usage Limit
kgals/year

S = Weight % Sulfur
0.5

62.3 (4 units total)

2,790

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
	2.0	2.0	71 (142.0 S)	20.0	0.34	5.0
Potential to Emit in tons/yr	2.79	2.79	99.0	27.9	0.47	6.98

*PM emission factor is for filterable PM emissions only . Assume PM10 emissions equal PM emissions.
Emission factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (AP-42, 09/98).

Methodology

1 gallon of No. 2 fuel oil has a heating value of 140,000 Btu.

PTE (tons/yr) = Fuel Usage Limit (kgals/yr) x Emission Factor (lbs/kgal) x 1 ton/2000 lbs

**Appendix A: Emission Calculations
Natural Gas Combustion
(MMBtu/hr < 100)
From Natural Gas Fired Insignificant Units**

**Company Name: Geo. Pfau's Sons Company, Inc.
Address: 800 Wall Street, Jeffersonville, IN 47131
FESOP #: 019-20929-00046
Reviewer: ERG/YC
Date: April 21, 2005**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.48 (12 units total)

13.0

	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
Emission Factor in lbs/MMCF	7.6	7.6	0.6	100	5.5	84.0
Potential to Emit in tons/yr	0.05	0.05	3.9E-03	0.65	0.04	0.54

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

**Emission factors for NO_x: Uncontrolled = 100 lbs/MMCF.

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

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

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

Appendix B

Best Available Control Technology (BACT) Determinations

Source Background and Description

Source Name: Geo. Pfau's Sons Company, Inc.
Source Location: 800 Wall Street, Jeffersonville, Indiana 47131
County: Clark
SIC Code: 2077
FESOP No.: 019-20929-00046
Permit Reviewer: ERG/YC

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the following emission unit at an industrial fats and oils processing plant, owned and operated by the Geo. Pfau's Sons Company, Inc., located at 800 Wall Street, Jeffersonville, Indiana 47131.

- (e) One (1) reactor system, to be constructed in 2005, with a maximum capacity of 7,500 gallons per batch and a maximum process time of 16 hours per batch, controlled by Boiler #4, and exhausting through stack 3. This system consists of two (2) reactors each with mixer (for fat, methanol, and catalyst), condenser, receiver, and inter-connecting process, utility piping, and associated instrumentation.

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for all facilities constructed after January 1, 1980 that have potential VOC emissions of equal to or greater than twenty-five (25) tons per year and that are not regulated by other rules in 326 IAC 8. Based on the calculations (see Appendix A) and the analysis of applicable state regulations (see State Rule Applicability section of TSD), the proposed reactor system at this source is subject to the requirements of 326 IAC 8-1-6.

IDEM, OAQ requires BACT analyses be prepared in accordance with the *"Top-Down" Best Available Control Technology* process, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below:

- (a) Identify all potentially available control options;
- (b) Eliminate technically infeasible control options;
- (c) Rank remaining control technologies by control effectiveness;
- (d) Evaluate the most effective controls and document the results as necessary; and
- (e) Select BACT.

In accordance with EPA guidance, the BACT analysis should take into account the energy, environmental, and economic impacts. Emission reductions may be achieved through the application of available control techniques, changes in process design, and/or operational limitations. These BACT determinations are based on the following information:

- (a) The BACT analysis information submitted by the Permittee on March 15, 2005.
- (b) The EPA RACT/BACT/LAER (RBLCL) Clearinghouse; and
- (c) State and local air quality permits.

VOC BACT

Geo. Pfau's Sons Company, Inc. will construct and operate a reactor system, which is a batch process used to process animal oil to produce different grades of oil for industrial uses. Methanol will be added during the process and VOC emissions (mainly methanol) are expected to be emitted from the distillation and displacement processes. The potential VOC emissions from the reactor system are greater than 25 tons per year based on the emission factors provided by the vendor. Since this process is not regulated by any other rule in 326 IAC 8, the Permittee is required to control VOC emissions from this reactor system with BACT, pursuant to 326 IAC 8-1-6.

Step 1 – Identify Control Options

The following available technologies were identified and evaluated to control VOC emissions from the reactors:

- (a) IDEM, OAQ and the source searched EPA's RACT/BACT/LAER Clearinghouse (RBLC) for SIC code 2077. However, no animal oil processing plant was found in the RBLC database.
- (b) The Permittee evaluated the following control technologies:
 - (1) Boiler;
 - (2) Flame Oxidizer;
 - (3) Regenerative Thermal Oxidizer (RTO);

Step 2 – Eliminate Technically Infeasible Control Options

Based on the results from the RBLC database search and the evaluation of the control technologies provided by the Permittee, IDEM, OAQ has determined that all of the control technologies identified are feasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The technically feasible approaches for controlling VOC emissions from the reactor system are:

Control Technology	Control Efficiency (%)
Boiler	Greater than 95%
Flame Oxidizer	Greater than 95%
Regenerative Thermal Oxidizer (RTO)	Greater than 95%

Step 4 – Evaluate the Most Effective Controls and Document Results

Based on the information provided by the Permittee, all the control technologies identified above can provide the same level of control efficiencies for VOC.

Step 5 – Select BACT

The Permittee has proposed to install a boiler (Boiler #4) to control the VOC emissions from the reactor system. IDEM has determined that BACT for the proposed reactor system is as follows:

- (a) The VOC emissions from the reactor system shall be controlled by Boiler #4.
- (b) The overall control efficiency (destruction efficiency times capture efficiency) for Boiler #4 shall be at least 95%.
- (c) The VOC emissions from the reactor system after Boiler #4 shall not exceed 2.45 lbs/hr.