



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: January 31, 2005
RE: Beaver Oil Company, Inc. / MSOP 089-18800-00151
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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**MINOR SOURCE OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY**

and

Gary Department of Environmental Affairs

**Beaver Oil Company, Inc.
1040 Michigan Street
Gary, Indiana 46402**

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

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

Operation Permit No.: MSOP 089-18800-00151	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 31, 2005 Expiration Date: January 31, 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) and Gary Department of Environmental Affairs (GDEA). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary centralized waste treatment plant that produces secondary fuel and lubricating oil.

Authorized Individual: President
Source Address: 1040 Michigan Street, Gary IN 46402
Mailing Address: 1040 Michigan Street, Gary IN 46402
General Source Phone: 219-881-9234
SIC Code: 2992
County Location: Lake
Source Location Status: Severe Nonattainment for 1-hour Ozone
Moderate Nonattainment for 8-hour Ozone
Nonattainment for SO₂
Attainment area for all other criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD and Nonattainment NSR;
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content;
- (b) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to burn natural gas and No.2 fuel oil with 0.5% sulfur content.
- (c) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
- (d) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
- (e) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
- (f) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
- (g) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;
- (h) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
- (i) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol);

- (j) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
- (k) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
- (l) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;
- (m) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;
- (n) three (3) vertical fixed roof liquid processing tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
- (o) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
- (p) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
- (q) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
- (r) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;
- (s) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;
- (t) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material; and
- (u) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material.
- (v) Two (2) vertical fixed roof liquid storage tanks, identified as FP-2 and FP-3, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 630,000 gallons.
- (w) Two (2) vertical fixed roof liquid storage tanks, identified as FP-4 and FP-5, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 110,000 gallons.
- (x) Six (6) vertical fixed roof liquid storage tanks, identified as F-13 to F-18, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 25,000 gallons.
- (y) Two (2) scrubbers, identified as SC1 and SC2 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate 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.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

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

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

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs (GDEA) on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) 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, and GDEA, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, GDEA. IDEM, OAQ, GDEA 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 an "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.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)].

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

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ Permits Branch and GDEA, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, and GDEA shall issue a revised permit.

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.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Permit Revocation [326 IAC 2-1.1-9]

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

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

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 twenty percent (20%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 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.4 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

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

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

Testing Requirements

C.5 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and GDEA not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, and GDEA 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.6 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

C.7 Compliance Monitoring [326 IAC 2-1.1-11]

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

C.8 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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

C.9 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and GDEA 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 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 timeframe 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, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (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
 - (2) If none of the reasonable response steps listed in the Compliance Response 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 and GDEA 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 a minor permit modification 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) 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.

Record Keeping and Reporting Requirements

C.10 Malfunctions Report [326 IAC 1-6-2]

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

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

C.11 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

C.12 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and GDEA on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content.
- (b) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content.

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

Emission Limitations and Standards

D.1.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from one (1) Johnston boiler, identified as Boiler-1, and one (1) Cleaver-Brooks boiler, identified as Boiler -2, shall be limited to 0.60 and 0.56 pounds per MMBtu heat input respectively.

D.1.2 Sulfur Content [326 IAC 7-1.1]

The two (2) boilers, identified as Boiler-1 and Boiler-2, shall each burn fuel oil with no higher than 0.5% sulfur when burning No.2 fuel oil.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using X-Ray Fluorescence method (EPA Method 9075) or 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

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

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts shall be performed once per shift during normal daylight operations when combusting fuel oil and exhausting to the atmosphere. 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 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 and Implementation shall be considered a deviation from this permit.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Condition D.1.2.
- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

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

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

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

- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per shift when combusting fuel oil.
- (c) To document compliance with Condition D.1.3, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 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 report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (b) A semi-annual summary of the information to document compliance with Condition D.1.1 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 six (6) month period being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
- (b) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
- (c) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
- (d) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
- (e) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;
- (f) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
- (g) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol);
- (h) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
- (i) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
- (j) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;
- (k) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;
- (l) three (3) vertical fixed roof liquid processing tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
- (m) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
- (n) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
- (o) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
- (p) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;
- (q) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;

List of emission units continued from previous page as follows:

- (r) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material; and
- (s) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material.
- (t) Two (2) vertical fixed roof liquid storage tanks, identified as FP-2 and FP-3, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 630,000 gallons.
- (u) Two (2) vertical fixed roof liquid storage tanks, identified as FP-4 and FP-5, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 110,000 gallons.
- (v) Six (6) vertical fixed roof liquid storage tanks, identified as F-13 to F-18, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 25,000 gallons.

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

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

D.2.1 Volatile Organic Liquid Storage Tanks [326 IAC 12]

- (a) Pursuant to 326 IAC 12, the liquid storage tanks identified as F1, F2, S1, S2, S3, S4, S5 and T12 have the following record keeping and reporting as stated in b(1) and b(2) below.
- (b) Pursuant to New Source Performance Standard (NSPS) (40 CFR 60.116b, Subpart Kb), the liquid storage tanks identified as F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, FP-2, FP-3, FP-4, FP-5, and F-13 to F-18 have record keeping and reporting requirements as stated (1) and (2) below.
 - (1) The Permittee shall maintain records required in section (b) below for the life of the storage vessel.
 - (2) The Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
 - (A) The vessel identification number
 - (B) The vessel dimensions
 - (C) The vessel capacity

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

and

Gary Department of Environmental Affairs

SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Beaver Oil Company, Inc.
Source Address: 1040 Michigan Street, Gary, Indiana 46402
Mailing Address: 1040 Michigan Street, Gary, Indiana 46402
Permit No.: M 089-18800-00151

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

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

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

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

and

Gary Department of Environmental Affairs

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

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

Company Name:	Beaver Oil Company, Inc.
Address:	1040 Michigan Street, Gary, Indiana 46402
City:	Gary
Phone #:	219-881-9234
MSOP #:	089-18800-00151

I hereby certify that **[source]** is still in operation.
 no longer in operation.

I hereby certify that **[source]** is in compliance with the requirements of MSOP **089-18800-00151**.
 not in compliance with the requirements of MSOP **089-18800-00151**.

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

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

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

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

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

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

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

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

DATE/TIME MALFUNCTION STARTED: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM₁₀, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

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

and

Gary Department of Environmental Affairs

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

Source Background and Description

Source Name:	Beaver Oil Company, Inc.
Source Location:	1040 Michigan Street, Gary, Indiana 46402
County:	Lake
SIC Code:	2992
Operation Permit No.:	089-10557-00151
Operation Permit Issuance Date:	May 13, 1999.
Permit Renewal No.:	089-18800
Permit Reviewer:	Femi Ogunsola/EVP

The Office of Air Quality (OAQ) has reviewed an application from Beaver Oil Company, Inc. relating to the construction and operation of centralized waste treatment plant that produces secondary fuel and lubricating oil.

Permitted Emission Units and Pollution Control Equipment

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

- (a) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content;
- (b) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content;
- (c) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
- (d) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
- (e) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
- (f) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
- (g) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;

- (h) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
- (i) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol); and
- (j) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
- (k) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
- (l) two (2) 25,000 gallon vertical fixed roof liquid storage tanks, designated F3 and F4, storing finished product oil;
- (m) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;
- (n) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
- (o) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
- (p) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
- (q) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
- (r) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;
- (s) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;
- (t) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material; and
- (u) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material.

Unpermitted Emission Units and Pollution Control Equipment

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

Existing Approvals

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

- (a) Operating Permit, MSOP 089-10557-00151, issued on May 13, 1999.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
Johnston	Boiler-1	32.5	1.2	1391	450
Cleaver-Brooks	Boiler-2	22.1	1.5	2646	450

Recommendation

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

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

A complete application for the purposes of this review was received on April 12, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 to 10 of TSD Appendix).

Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	1.7
PM ₁₀	1.7
SO ₂	27.9
VOC	3.75
CO	6.6
NO _x	13.30

HAPs	Potential to Emit (tons/yr)
Hexane	0.10
Total	0.12

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO₂ are greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM ₁₀	moderate nonattainment
SO ₂	primary nonattainment
NO ₂	attainment
1-hour Ozone	severe nonattainment
8-hour Ozone	moderate nonattainment
CO	primary nonattainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
 - (1) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Lake County has been designated as nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

(2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.

- (b) Lake County has been classified as nonattainment in Indiana for PM₁₀, SO₂ and CO. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

Source Status

Existing Source PSD, Part 70, or FESOP 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	1.7
PM ₁₀	1.7
SO ₂	27.90
VOC	3.75
CO	6.60
NO _x	13.30
Single HAP	0.10
Combination HAPs	0.12

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) This existing source is not a major stationary source because SO₂, NO_x and CO are emitted at a rate of less than 100 tons per year and VOC is emitted at the rate of less than 25 tons per year and it is not in one of the 28 listed source categories.
- (c) These emissions were based on previous MSOP approval , 089-10557-00151 issued on May 13, 1999.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 089-18800-00151, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

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

Federal Rule Applicability

- (a) Neither of the two (2) boilers (Boiler-1 and Boiler-2) is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because the maximum heat input capacity is less than 10 million British thermal units per hour.
- (b) The following liquid storage tanks are subject to the New Source Performance Standard, (40 CFR Parts 60.110b, Subpart Kb) because the tanks were constructed after July 23, 1984, and have capacities greater than 19,820 gallons (75 cubic meters). Records of capacity and dimension shall be kept for each of these tanks pursuant to this rule for the life of the source:

Tank ID	Capacity
F3	25000
F4	25000
F5	25000
F6	25000
F7	25000
F8	25000
F9	25000
F10	20000
F11	33000
F12	30000

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 20 and 40 CFR part 61, 63) included in the permit for this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit of VOC and NOx is less than (ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

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

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period unless otherwise specified in 326 IAC 6-1-10.1..
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

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

The operation of this centralized waste treatment plant that produces secondary fuel and lubricating oil will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating)

Pursuant to this rule, particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

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

where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input

Note: Pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6.

At the time the 4.19 MMBtu/hr Johnston boiler was constructed it was the only source of indirect heating and the total Q was less than 10 MMBtu/hr. Therefore, the particulate matter emissions from the Johnston boiler shall not exceed 0.60 lbs/MMBtu.

The new 8.37 MMBtu/hr Cleaver Brooks boiler will replace the existing 2.9 MMBtu/hr Cleaver Brooks boiler. The total source maximum operating capacity will then be the sum of the 4.19 MMBtu/hr Johnston boiler and the new 8.37 MMBtu/hr Cleaver Brooks boiler, a total Q of 12.56 MMBtu/hr. Based on the equation above, the particulate matter emissions from the new Cleaver Brooks boiler shall not exceed 0.56 lbs/MMBtu.

326 IAC 7-1.1 (Sulfur dioxide emission limitations)

The provisions of this rule do not apply to the boilers at this source because each facility has the potential to emit less than twenty-five (25) tons per year and less than ten (10) pounds per hour of sulfur dioxide based on sulfur content of 0.5% in No. 2 fuel oil.

326 IAC 7-4-1.1 (Sulfur dioxide emission limitations: Lake County)

This rule does not apply to the boilers located at this source because they are not subject to 326 IAC 7-1.1.

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

This rule is not applicable to any of the liquid storage tanks at the source because they are each less than 39,000 gallons in capacity.

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

The tanks at this source, located in Lake County, each with capacities less than thirty nine thousand (39,000) gallons would have been subject to the reporting and record keeping provisions of section 6 (a) and 6 (b) of this rule and exempt from all other provisions of this rule pursuant to 326 IAC 8-9-1 (a) and (b). However, rule 326 IAC 8-9-2 (8) exempts any NSPS units, and therefore rule 326 IAC 8-9 does not apply to the tanks.

326 IAC 12 (Volatile Organic Liquid Storage Tanks)

Pursuant to 326 IAC 12, the liquid storage tanks listed below in table below have the record keeping and reporting requirements as follows:

- (a) The Permittee shall maintain records required in section (b) below for the life of the storage vessel.
- (b) The Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
 - (1) The vessel identification number
 - (2) The vessel dimensions
 - (3) The vessel capacity

Tank ID	Capacity
F1	15275
F2	15275
S1	15275
S2	15275
S3	15275
S4	15275
S5	15275
T12	15000

Conclusion

The operation of this centralized waste treatment plant that produces secondary fuel and lubricating oil shall be subject to the conditions of the Minor Source Operating Permit 089-18800-00151.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document (TSD) for
a Minor Source Operating Permit (MSOP) Renewal

Source Background and Description

Source Name:	Beaver Oil Company, Inc.
Source Location:	1040 Michigan Street, Gary, Indiana 46402
County:	Lake
SIC Code:	2992
Operation Permit No.:	089-10557-00151
Operation Permit Issuance Date:	May 13, 1999
Permit Renewal No.:	089-18800-00151
Permit Reviewer:	Femi Ogunsola / EVP

On October 22, 2004, the Office of Air Quality (OAQ) had a notice published in the Post Tribune in Gary, Indiana, stating that Beaver Oil Company, Inc. had applied for a Minor Source Operating Permit (MSOP) renewal to operate a centralized waste treatment operation that produces secondary fuel and lubricating oil. The notice also stated that OAQ proposed to issue a Minor Source Operating Permit for this operation and provided information on how the public could review the proposed MSOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this MSOP should be issued as proposed.

On December 9 and 13, 2004, Suresh Rao of Environment, Inc., on behalf of Beaver Oil Company submitted comments on the proposed MSOP renewal. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted).

Comment 1

Please include the following permitted units in the MSOP:

- (a) Two (2) vertical fixed roof liquid storage tanks, identified as FP-2 and FP-3, for storing finished product oil with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 630,000 gallons.
- (b) Two (2) vertical fixed roof liquid storage tanks, identified as FP-4 and FP-5, for storing finished product oil with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 110,000 gallons.
- (c) Six (6) vertical fixed roof liquid storage tanks, identified as F-13 to F-18, for storing finished product oil with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 25,000 gallons.
- (d) Two (2) scrubbers, identified as SC1 and SC2 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds.

Response 1

OAQ, IDEM agrees to add these units not previously included in the permit in Section A.2 and D.2 emission units listing. Since the added tanks will require the same record keeping conditions (as required by 40 CFR 60.110b, subpart Kb) as the units with maximum capacity greater than 19,800 gallons and storing organic liquid with a maximum vapor pressure of less than 3.5 kPa listed in D.2. Condition D.2.1 shall also be revised to include these units. The scrubbers SC1 and SC2 will be used for odor reduction and will not increase PTE of any regulated pollutant. Therefore, the permit has been revised as follows:

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content;
- (b) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to burn natural gas and No.2 fuel oil with 0.5% sulfur content.
- (c) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
- (d) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
- (e) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
- (f) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
- (g) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;
- (h) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
- (i) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol);
- (j) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
- (k) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
- (l) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;
- (m) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;

- (n) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
- (o) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
- (p) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
- (q) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
- (r) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;
- (s) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;
- (t) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material; and
- (u) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material.
- (v) Two (2) vertical fixed roof liquid storage tanks, identified as FP-2 and FP-3, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 630,000 gallons.**
- (w) Two (2) vertical fixed roof liquid storage tanks, identified as FP-4 and FP-5, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 110,000 gallons.**
- (x) Six (6) vertical fixed roof liquid storage tanks, identified as F-13 to F-18, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 25,000 gallons.**
- (y) Two (2) scrubbers, identified as SC1 and SC2 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds.**

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
- (b) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
- (c) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
- (d) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
- (e) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;
- (f) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
- (g) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol); and
- (h) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
- (i) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
- (j) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;
- (k) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;
- (l) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
- (m) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
- (n) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
- (o) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
- (p) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;
- (q) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;

List of emission units continued from previous page as follows:

- (r) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material; and
- (s) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material.
- (t) Two (2) vertical fixed roof liquid storage tanks, identified as FP-2 and FP-3, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 630,000 gallons.**
- (u) Two (2) vertical fixed roof liquid storage tanks, identified as FP-4 and FP-5, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 110,000 gallons.**
- (v) Six (6) vertical fixed roof liquid storage tanks, identified as F-13 to F-18, for storing finished product oil each with a maximum vapor pressure of 7.5 mm Hg (150°F) and a maximum storage capacity of 25,000 gallons.**

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

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

D.2.1 Volatile Organic Liquid Storage Tanks [326 IAC 12]

- (a) Pursuant to 326 IAC 12, the liquid storage tanks identified as F1, F2, S1, S2, S3, S4, S5 and T12 have the following record keeping and reporting as stated in (1) and (2) below.
- (b) Pursuant to New Source Performance Standard (NSPS) (40 CFR 60.116b, Subpart Kb), the liquid storage tanks identified as F3, F4, F5, F6, F7, F8, F9, F10, F11, ~~and F12~~, **FP-2, FP-3, FP-4, FP-5 and F-13 to F-18** have record keeping and reporting requirements as stated (1) and (2) below.
 - (1) The Permittee shall maintain records required in section (b) below for the life of the storage vessel.
 - (2) The Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
 - (A) The vessel identification number
 - (B) The vessel dimensions
 - (C) The vessel capacity

Comment 2

Visible Emission Notations to be maintained only when burning fuel oil. As indicated to you we burn natural gas most of the time in the boilers.

Response 2

Condition D.1.5 does not require the source to perform visible emission notation when burning natural gas. Therefore, no change is necessary to condition D.1.5.

Comment 3

When testing for Sulfur in fuel oil we would like to use the X-Ray Fluorescence method (EPA Method 9075) as an option.

Response 3

Condition D.1.4 has been revised as follows:

D.1.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using **X-Ray Fluorescence method (EPA Method 9075)** or 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

Comment 4

We would like tanks FP2, FP3, FP4 and FP 5 to have the same level of recordkeeping under NSPS as the other tanks. That is Tank I.D, Dimensions and Capacity.

Response 4

This comment has been addressed in Response 1.

However, upon further review, OAQ has determined the following changes (bolded language has been added and the language with a line through it has been deleted) will be made to the permit:

1. In the Table of Content for section C subheading should be included to reflect the same format as in the body of permit. Since these should normally be bold they are italicized to indicate that they are added. The rule citation is added to C.8 for completion like in the permit (bold in this case to indicate addition) while the citation for C.12 has been corrected to be the same as in the permit.

C SOURCE OPERATION CONDITIONS..... 10

- C.1 Permit Revocation [326 IAC 2-1.1-9]
- C.2 Opacity [326 IAC 5-1]
- C.3 Fugitive Dust Emissions [326 IAC 6-4]
- C.4 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

Testing Requirements

- C.5 Performance Testing [326 IAC 3-6]

Compliance Requirements [326 IAC 2-1.1-11]

- C.6 Compliance Requirements [326 IAC 2-1.1-11]

Compliance Monitoring Requirements

- C.7 Compliance Monitoring [326 IAC 2-1.1-11]
- C.8 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.9 Compliance Response Plan - Preparation and Implementation

Record Keeping and Reporting Requirements

- C.10 Malfunctions Report [326 IAC 1-6-2]
- C.11 General Record Keeping Requirements [326 IAC 2-6.1-25]
- C.12 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

2. The following changes were made to the listing of subheading in Table of Content for Sections D.1 and D.2:

D.1 EMISSIONS UNIT OPERATION CONDITIONS - Natural Gas & Fuel Oil Fired Boilers 16

Emission Limitations and Standards

- D.1.1 Particulate [326 IAC 6-2-4]
- D.1.2 Sulfur Content [**326 IAC 7-1.1**]
- D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

- D.1.4 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.5 Visible Emissions Notations

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

- D.1.6 Record Keeping Requirements
- D.1.7 Reporting Requirements

D.2 EMISSIONS UNIT OPERATION CONDITIONS – Storage Tanks 19

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

- D.2.1 ~~Record Keeping Requirements~~ Volatile Organic Liquid Storage Tanks [326 IAC 12]

3. Section A of the permit has been revised as follows:

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary centralized waste treatment plant that produces secondary fuel and lubricating oil.

Authorized Individual: President
Source Address: 1040 Michigan Street, Gary IN 46402
Mailing Address: 1040 Michigan Street, Gary IN 46402
General Source Phone: 219-881-9234
SIC Code: 2992
County Location: Lake
Source Location Status: Severe Nonattainment for 1-hour Ozone
Moderate Nonattainment for 8-hour Ozone
Nonattainment for ~~PM₁₀, SO₂ and CO~~
Attainment area for all other criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD and Nonattainment NSR;
Minor Source, Section 112 of the Clean Air Act

Section A.2 (n) has been revised as follows:

- (n) three (3) vertical fixed roof liquid ~~storage~~ **processing** tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;

4. Sections B.6, B.7, B.8, B.9 and B.10 have been revised as follows:

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management

Compliance Branch, Office of Air Quality
~~Indiana Department of Environmental Management~~
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Gary Department of Environmental Affairs
Suite 1012
504 N. Broadway
Gary, IN 46402

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs (GDEA) on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) 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, and ~~Gary Department of Environmental Affairs~~ **GDEA**, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, ~~Gary Department of Environmental Affairs~~ **GDEA**. IDEM, OAQ, ~~Gary Department of Environmental Affairs~~ **GDEA** 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 an "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.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2]
[IC13-17-3-2][IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, ~~Gary Department of Environmental Affairs~~ **and GDEA**, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ and ~~Gary Department of Environmental Affairs~~ **and GDEA**, shall issue a revised permit. 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.

5. Sections C.1, C.4(f) and C.5(c) have been revised as follows:

C.1 Permit Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM ~~Gary Department of Environmental Affairs~~ and **GDEA** the fact that continuance of this permit is not consistent with purposes of this article.

Section C.4 (f) has been revised as follows:

- (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).

Section C.5 (c) has been revised as follows:

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ ~~(and local agency)~~ and **GDEA** not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, ~~(and local agency)~~ and **GDEA**, 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.

6. Section C.8 Maintenance of Continuous Emission Monitoring Equipment has been removed as follows, because the source is not operating and has no continuous emission monitoring equipment:

~~C.8 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]~~

- ~~(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.~~
- ~~(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.~~
- ~~(c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS is back in operation.~~
- ~~(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to T089-10557-00151.~~

Subsequent section numbers have been re-numbered following the removal of section C.8 as explained above.

7. Section C.10 (a) (now renumbered C.9) has been revised as follows:

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and ~~Gary Department of Environmental Affairs~~ **GDEA** 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 comprised of:

8. Section C.10 (b) (3) (now renumbered C.9 (b) (3)) has been amended to include GDEA for notification in case of shot down as follows:

- (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 **and GDEA** 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.

9. Sections C.11 (a) and (b) (now renumbered C.10) have been revised as follows:

C.10 Malfunctions Report [326 IAC 1-6-2]

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the ~~Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ),~~ **and GDEA** or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to **IDEM, OAQ, and GDEA** using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

10. Section C.12 (now renumbered C.11) has been revised as follows:

C.11 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

11. Section C.13 (now renumbered C.12, General Reporting Requirements) subsections (b) and (c) have been revised as follows:
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and ~~Gary Department of Environmental Affairs~~ **GDEA** on or before the date it is due.
 - (c) Unless otherwise specified in this permit, ~~any semi-annual report~~ **all reports** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
12. Section D.1
- Section D.1 Facility Description (a) and (b) has been revised to replace the word "combust" with "burn" to be consistent with Section A of the permit.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to ~~combust~~ **burn** natural gas and No. 2 fuel oil with 0.5% sulfur content.
- (b) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to ~~combust~~ **burn** natural gas and No. 2 fuel oil with 0.5% sulfur content.

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

13. Section D.1.5 (a) has been revised as follows:
- (a) Visible emission notations of the boiler stack exhausts shall be performed once per shift during normal daylight operations only when combusting fuel oil and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
14. Section D.1.6 (b) has been revised as follows:
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per shift when combusting fuel oil.

15. Section D.1.7(a) indicates that a natural gas boiler certification should be included in the permit for the source's reporting. This form was not included in the proposed permit but now has been included as follows:

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

And

Gary Department of Environmental Affairs

SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Beaver Oil Company, Inc.
Source Address: 1040 Michigan Street, Gary, Indiana 46402
Mailing Address: 1040 Michigan Street, Gary, Indiana 46402
Permit No.: M 089-18800-00151

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

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

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

17. Section D.2 Facility descriptions (g) and (l) have been revised as follows:
- (g) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol); ~~and~~
 - (l) three (3) vertical fixed roof liquid ~~storage~~ **processing** tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
18. Section D.2.1 has been revised as follows:

D.2.1 Volatile Organic Liquid Storage Tanks [326 IAC 12]

- (a) Pursuant to 326 IAC 12, the liquid storage tanks identified as F1, F2, S1, S2, S3, S4, S5 and T12 have the following record keeping and reporting as stated in **b(1)** and **b(2)** below.
- (b) Pursuant to New Source Performance Standard (NSPS) (40 CFR 60.116b, Subpart Kb), the liquid storage tanks identified as F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, FP-2, FP-3, FP-4, FP-5, and F-13 to F-18 have record keeping and reporting requirements as stated (1) and (2) below.
 - (2) The Permittee shall maintain records required in section (b) below for the life of the storage vessel.
 - (2) The Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
 - (A) The vessel identification number
 - (B) The vessel dimensions
 - (C) The vessel capacity

Appendix A: Emission Calculations

Company Name: Beaver Oil Company, Inc.
Address City IN Zip: 1040 Michigan Street, Gary, IN 46402
CP: 089-18800
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 09/16/2004

Uncontrolled Potential Emissions (tons/year)						
Emissions Generating Activity						
Pollutant	Boiler 1 Natural Gas Combustion	Boiler 1 Fuel Oil Combustion	Boiler 2 Natural Gas Combustion	Boiler 2 Fuel Oil Combustion	Tanks	TOTAL
PM	0.10	0.40	0.30	0.90	0.00	1.70
PM ₁₀	0.10	0.40	0.30	0.90	0.00	1.70
SO ₂	0.00	9.30	0.00	18.60	0.00	27.90
NO _x	1.80	2.60	3.70	5.20	0.00	13.30
VOC	0.10	0.00	0.20	0.10	3.35	3.75
CO	1.50	0.70	3.10	1.30	0.00	6.60
total HAPs	0.04	0.00	0.08	0.00	0.00	0.12
worst case single HAP	0.03	0.00	0.07	0.00	0.00	0.10
Total emissions based on rated capacity at 8,760 hours/year.						
Controlled Potential Emissions (tons/year)						
Emissions Generating Activity						
Pollutant	Boiler 1 Natural Gas Combustion	Boiler 1 Fuel Oil Combustion	Boiler 2 Natural Gas Combustion	Boiler 2 Fuel Oil Combustion	Tanks	TOTAL
PM	0.10	0.40	0.30	0.90	0.00	1.70
PM ₁₀	0.10	0.40	0.30	0.90	0.00	1.70
SO ₂	0.00	9.30	0.00	18.60	0.00	27.90
NO _x	1.80	2.60	3.70	5.20	0.00	13.30
VOC	0.10	0.00	0.20	0.10	3.35	3.75
CO	1.50	0.70	3.10	1.30	0.00	6.60
total HAPs	0.04	0.00	0.08	0.00	0.00	0.12
worst case single HAP	0.03	0.00	0.07	0.00	0.00	0.10
Total emissions based on rated capacity at 8,760 hours/year, after control.						

Appendix A: Emissions Calculations

Storage Tank Summary

(calculations based on AP-42 factors as calculated by Tanks 3.1)

Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-10557
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 09/16/2004

Tank ID	Description	Material Stored	Temperature (deg. F)	est. vapor pressure (psia)	Capacity (gallons)	Annual Throughput (gallons)	Annual Losses (lbs/yr)
F1	horizontal fixed roof	finished product	150	0.14503	15275	221317.6	139.45
F2	horizontal fixed roof	finished product	150	0.14503	15275	221317.6	139.45
F3	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F4	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
FP-1	horizontal fixed roof	finished product	150	0.14503	4894	70571.2	44.75
FT-1	horizontal fixed roof	finished product	150	0.14503	3854	55568.8	35.25
FT-2	horizontal fixed roof	finished product	150	0.14503	4174	60188.8	37.97
R1	vertical fixed roof	material in process	180	0.27458	3600	870882.6	195.37
R2	vertical fixed roof	material in process	180	0.27458	3600	870882.6	195.37
R3	vertical fixed roof	material in process	180	0.27458	6017	1455582.8	332.97
S1	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S2	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S3	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S4	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S5	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
T1	vertical fixed roof	material in process	180	0.27458	4700	1136984.8	246.54
T2	vertical fixed roof	material in process	180	0.27458	4700	1136984.8	246.54
T3	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T4	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T5	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T6	vertical fixed roof	soapy wash water	ambient	-	7050	-	-
T7	horizontal fixed roof	raw material	150	0.14503	5325	383650.4	104.49
T8A	vertical fixed roof	raw material	150	0.14503	5288	380984.8	95.68
T8B	vertical fixed roof	raw material	150	0.14503	5288	228244.8	92.71
T9	vertical fixed roof	raw material	150	0.14503	5288	360235.4	101.06
T12	vertical fixed roof	material in process	180	0.27458	15000	3628676.8	832.67
VOC EMISSIONS from old tanks (lb/yr)							5057.87
(ton/yr)							2.53
F5	vertical fixed roof	finished product	150	0.14503	25000	362222.0	196.83
F6	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F7	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F8	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F9	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F10	vertical fixed roof	fuel oil bulk storage	ambient	0.0074	20000	785897.0	20.81
F11	vertical fixed roof	finished product	150	0.14503	33000	475860.0	202.68
F12	vertical fixed roof	finished product	150	0.14503	30000	432600.0	202.08
S8	vertical fixed roof	raw material	150	0.14503	10000	720472.2	164.03
T10	vertical fixed roof	finished product	150	0.14503	10000	144200.0	71.35
T11	vertical fixed roof	finished product	150	0.14503	10000	144200.0	71.35
AF1	horizontal fixed roof	antifreeze storage	ambient	-	3000	-	-
AF2	horizontal fixed roof	antifreeze storage	ambient	-	3000	-	-
BF1	vertical fixed roof	boiler fuel oil	ambient	0.0074	5000	392948.5	6.99
BF2	vertical fixed roof	boiler fuel oil	ambient	0.0074	5000	392948.5	6.99
VOC EMISSIONS from new tanks (lb/yr)							1644.51
(ton/yr)							0.82
TOTAL VOC EMISSIONS from all tanks (lb/yr)							6702.38
(ton/yr)							3.35

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Beaver Oil Company, Inc.

Address City IN Zip: 1040 Michigan Street, Gary, IN

CP: 089-18800

Plt ID: 089-00151

Reviewer: Femi Ogunsola/EVP

Date: 09/16/2004

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.19

36.7

Existing Johnston Boiler

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.8	0.1	1.5

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

PM emission factors are condensable and filterable.

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

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

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

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Beaver Oil Company, Inc.

Address City IN Zip: 1040 Michigan Street, Gary, IN

CP: 089-18800

Plt ID: 089-00151

Reviewer: Femi Ogunsola/EVP

Date: 09/16/2004

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.849E-05	2.200E-05	1.375E-03	3.299E-02	6.232E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.165E-06	2.016E-05	2.566E-05	6.966E-06	3.849E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil**

**Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-18800
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 09/16/04**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
4.19	262.1742857	

Existing Johnston Boiler

Emission Factor in lb/kgal	Pollutant				
	PM	SO2	NOx	VOC	CO
3.3	71 <i>(142.0S)</i>	20.0	0.34	5.0	
Potential Emission in tons/yr	0.4	9.3	2.6	0.0	0.7

Methodology

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

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

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

PM Emission Factor is Condensable and Filterable PM

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

See page 2 for HAPs emission calculations.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions**

**Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-18800
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 09/16/04**

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	7.341E-05	5.506E-05	5.506E-05	5.506E-05	1.652E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	5.506E-05	1.101E-04	5.506E-05	2.753E-04

Methodology

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

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Beaver Oil Company, Inc.

Address City IN Zip: 1040 Michigan Street, Gary, IN

CP: 089-18800

Plt ID: 089-00151

Reviewer: Femi Ogunsola/EVP

Date: 09/16/2004

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

8.37

73.3

New Cleaver Brooks Boiler

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.3	0.3	0.0	3.7	0.2	3.1

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

PM emission factors are condensable and filterable.

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

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

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

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Beaver Oil Company, Inc.

Address City IN Zip: 1040 Michigan Street, Gary, IN

CP: 089-18800

Plt ID: 089-00151

Reviewer: Femi Ogunsola/EVP

Date: 09/16/2004

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.699E-05	4.399E-05	2.750E-03	6.599E-02	1.246E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.833E-05	4.033E-05	5.132E-05	1.393E-05	7.699E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil**

Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-18800
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 9/16/2004

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

8.37 523.7228571

New Cleaver Brooks Boiler

Emission Factor in lb/kgal	Pollutant				
	PM	SO2	NOx	VOC	CO
3.3	71 (142.0S)	20.0	0.34	5.0	
Potential Emission in tons/yr	0.9	18.6	5.2	0.1	1.3

Methodology

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

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM B

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

PM Emission Factor is Condensable and Filterable PM

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

See page 2 for HAPs emission calculations.

**Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions**

**Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-18800
Plt ID: 089-00151
Reviewer: Femi Ogunsola/EVP
Date: 09/16/2004**

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	1.466E-04	1.100E-04	1.100E-04	1.100E-04	3.299E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.100E-04	2.200E-04	1.100E-04	5.499E-04

Methodology

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

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