INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To:	Interested Parties
Date:	January 16, 2015
From:	Matthew Stuckey, Chief Permits Branch Office of Air Quality
Source Name:	Beaver Oil Company, Inc.
Permit Level:	Minor Source Operating Permit (MSOP) Renewal
Permit Number:	089-34990-00151
Source Location:	1040 Michigan Street Gary, Indiana
Type of Action Taken:	Permit Renewal

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 matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, select Search option 3, then enter permit 34990.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

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.

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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MINOR SOURCE OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

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 source described in Section A (Source Summary) of this permit.

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M089-34990-00151	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 16, 2015 Expiration Date: January 16, 2025

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY 4

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)] 4
A.2 Emissions Units and Pollution Control Equipment Summary 4

SECTION B GENERAL CONDITIONS 7

B.1 Definitions [326 IAC 2-1.1-1] 7
B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)] 7
B.3 Term of Conditions [326 IAC 2-1.1-9.5] 7
B.4 Enforceability 7
B.5 Severability 7
B.6 Property Rights or Exclusive Privilege 7
B.7 Duty to Provide Information 7
B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)] 8
B.9 Preventive Maintenance Plan [326 IAC 1-6-3] 8
B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5] 9
B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)] 9
B.12 Permit Renewal [326 IAC 2-6.1-7] 9
B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6] 10
B.14 Source Modification Requirement 10
B.15 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1] 10
B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6] 10
B.17 Annual Fee Payment [326 IAC 2-1.1-7] 11
B.18 Credible Evidence [326 IAC 1-1-6] 11

SECTION C SOURCE OPERATION CONDITIONS 12

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)] 12
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2] 12
C.2 Permit Revocation [326 IAC 2-1.1-9] 12
C.3 Opacity [326 IAC 5-1] 12
C.4 Open Burning [326 IAC 4-1][IC 13-17-9] 12
C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2] 12
C.6 Fugitive Dust Emissions [326 IAC 6-4] 12
C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M] 13

Testing Requirements [326 IAC 2-6.1-5(a)(2)] 14
C.8 Performance Testing [326 IAC 3-6] 14

Compliance Requirements [326 IAC 2-1.1-11] 14
C.9 Compliance Requirements [326 IAC 2-1.1-11] 14

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)] 14
C.10 Compliance Monitoring [326 IAC 2-1.1-11] 14
C.11 Instrument Specifications [326 IAC 2-1.1-11] 14

Corrective Actions and Response Steps 14
C.12 Response to Excursions or Exceedances 14
C.13 Actions Related to Noncompliance Demonstrated by a Stack Test 15

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS 17

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]..... 17
D.1.1 Particulate [326 IAC 6-2-4]..... 17
D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]..... 17

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS 18

Record Keeping and Reporting Requirement [326 IAC 2-6.1-5 (a) (2)]..... 19
D.2.1 Record Keeping Requirements [326 IAC 8-9-6] 19

SECTION E.1 NSPS 21

New Source Performance Standards (NSPS) Requirements [326 IAC 2-6.1-5(a)(1)] 21
E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]..... 21
E.1.2 Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [40 CFR 60, Subpart VVa][326 IAC 12] 22

SECTION E.2 NSPS 23

New Source Performance Standards (NSPS) Requirements [326 IAC 2-6.1-5(a)(1)] 23
E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A] 23
E.2.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984NSPS [326 IAC 12][40 CFR Part 60, Subpart Kb] 24

ANNUAL NOTIFICATION 25

MALFUNCTION REPORT..... 26

Attachment A: 40 CFR 60, Subpart VVa

Attachment B: 40 CFR 60, Subpart Kb

SECTION A SOURCE SUMMARY

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

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

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

Source Address:	1040 Michigan Street, Gary, Indiana 46402
General Source Phone Number:	219-881-9234
SIC Code:	2992
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

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

(a) One (1) natural gas fired Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified Boiler-2, permitted in 1999.

(b) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, identified Boiler-1, permitted in 1999.

(c) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified as Boiler-3, permitted in 2002.

(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, identified as F5 through F9, storing finished product oil, permitted in 1999.

(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, identified as F10, storing No. 2 fuel oil, permitted in 1999.

(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, identified as F11, storing finished product oil, permitted in 1999.

(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as F12, storing finished product oil, permitted in 1994.

(h) One (1) 10,000 gallon vertical fixed roof liquid storage tank, identified as S8, storing incoming raw material, permitted in 1999.

(i) Two (2) 10,000 gallon vertical fixed roof liquid storage tanks, identified as T10 and T11, storing finished product oil, permitted in 2005.

(j) Two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, identified as AF1 and AF2, storing antifreeze (ethylene glycol), permitted in 1999.

(k) Two (2) 5,000 gallon vertical fixed roof liquid storage tanks, identified as BF1 and BF2, storing No. 2 fuel oil, permitted in 1999.

(l) Two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as F1 and F2, storing finished product oil, permitted in 1994.

(m) One (1) 25,000 gallon horizontal fixed roof liquid storage tank, identified as F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, identified as F4, each storing finished product oil, permitted in 1994.

(n) Three (3) horizontal fixed roof liquid storage tanks, identified as FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil, permitted in 1994.

(o) Three (3) vertical fixed roof liquid storage tanks, identified as R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material, permitted in 1994.

(p) Five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as S1 through S5, storing incoming raw material, permitted in 1994.

(q) Two (2) 4700 gallon vertical fixed roof liquid storage tanks, identified as T1 and T2, for processing raw material, permitted in 1994.

(r) Three (3) 7050 gallon vertical fixed roof liquid storage tanks, identified as T3 through T5, storing incoming raw material, permitted in 1994.

(s) One (1) 7050 gallon vertical fixed roof liquid storage tank, identified as T6, storing wash water, permitted in 1999.

(t) One (1) 5325 gallon horizontal fixed roof liquid storage tank, identified as T7, storing incoming raw material, permitted in 1994.

(u) Two (2) 288 gallon vertical fixed roof liquid storage tanks, identified as T8B and T9, storing incoming raw material, permitted in 1994.

(v) One (1) 15,000 gallon vertical fixed roof liquid storage tank, identified as T12, for processing raw material, permitted in 1999.

(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, identified as SF1 and SF2, storing raw material, permitted in 2005.

(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as SF3, storing raw material, permitted in 2005.

(y) One (1) 2,120 gallon vertical fixed roof liquid storage tank, identified as E-W Sump Tank, storing process water, permitted in 2005.

(z) One (1) 12,000 gallon vertical fixed roof liquid storage tank, identified as IS 1, storing raw material, permitted in 2005.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product, permitted in 2005.

(bb) 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 (150oF) and each with a maximum storage capacity of 630,000 gallons, permitted in 2000.

(cc) 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 (150oF) and each with a maximum storage capacity of 110,000 gallons, permitted in 2000.

(dd) 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 (150oF) and each with a maximum storage capacity of 25,000 gallons, permitted in 2000.

(ee) Three (3) scrubbers, identified as SC1, SC2 and SC3 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds, permitted in 2003 and 2010.

(ff) One (1) methanol recovery process, constructed in October 2008, and consisting of the following:

(1) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R4, constructed in October 2008, with a maximum capacity of 6000 gallons per day.

(2) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R5, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

(3) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R6, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

Under New Source Performance Standard: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa), the pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing are considered affected sources.

(gg) One (1) 5,000 gallon vertical fixed roof reactor, identified as R7, storing raw material, permitted in 2010.

(hh) One (1) 6,000 gallon vertical fixed roof reactor, identified as R8, storing raw material, permitted in 2010.

(ii) One (1) 5,000 gallon vertical fixed roof still, consisting of Tank 8A with a condenser, identified as Still 1, storing raw material, permitted in 1994.

(jj) One (1) 2,000 gallon vertical fixed roof still, consisting of Tanks ST2A and ST2B, a heat exchanger and a condenser and are interconnected, identified as Still 2, storing raw material, permitted in 2010.

(kk) One (1) 6,000 gallon vertical fixed roof liquid storage tank, identified as SF4, storing raw material, permitted in 2010.

(ll) One (1) 9,000 gallon vertical fixed roof liquid storage tank, identified as SF5, storing raw material, permitted in 2010.

(mm) Two (2) 20,000 gallon vertical fixed roof liquid storage tank, identified as Tank 13 and Tank 14, storing raw material, permitted in 2010.

(nn) Paved and unpaved roads and parking lots with public access.

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, M089-34990-00151, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

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

B.5 Severability

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

B.6 Property Rights or Exclusive Privilege

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

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

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

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

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

(a) All terms and conditions of permits established prior to M089-34990-00151 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

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

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

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

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

B.15 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.18 Credible Evidence [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

C.7 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

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

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to

thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 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.11 Instrument Specifications [326 IAC 2-1.1-11]

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

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

Corrective Actions and Response Steps

C.12 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

C.14 Malfunctions Report [326 IAC 1-6-2]

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

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) 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) natural gas fired Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified Boiler-2, permitted in 1999.

(b) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, identified Boiler-1, permitted in 1999.

(c) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified as Boiler-3, permitted in 2002.

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

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

D.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 the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

Emission Unit	Unit ID	Pt (lb/MMBtu)
Johnston boiler	Boiler-1	0.565
Cleaver Brooks boiler	Boiler-2	0.565
Johnston boiler	Boiler-3	0.494

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and any control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(h) One (1) 10,000 gallon vertical fixed roof liquid storage tank, identified as S8, storing incoming raw material, permitted in 1999.

(i) Two (2) 10,000 gallon vertical fixed roof liquid storage tanks, identified as T10 and T11, storing finished product oil, permitted in 2005.

(j) Two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, identified as AF1 and AF2, storing antifreeze (ethylene glycol), permitted in 1999.

(k) Two (2) 5,000 gallon vertical fixed roof liquid storage tanks, identified as BF1 and BF2, storing No. 2 fuel oil, permitted in 1999.

(l) Two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as F1 and F2, storing finished product oil, permitted in 1994.

(n) Three (3) horizontal fixed roof liquid storage tanks, identified as FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil, permitted in 1994.

(o) Three (3) vertical fixed roof liquid storage tanks, identified as R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material, permitted in 1994.

(p) Five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as S1 through S5, storing incoming raw material, permitted in 1994.

(q) Two (2) 4700 gallon vertical fixed roof liquid storage tanks, identified as T1 and T2, for processing raw material, permitted in 1994.

(r) Three (3) 7050 gallon vertical fixed roof liquid storage tanks, identified as T3 through T5, storing incoming raw material, permitted in 1994.

(s) One (1) 7050 gallon vertical fixed roof liquid storage tank, identified as T6, storing wash water, permitted in 1999.

(t) One (1) 5325 gallon horizontal fixed roof liquid storage tank, identified as T7, storing incoming raw material, permitted in 1994.

(u) Two (2) 288 gallon vertical fixed roof liquid storage tanks, identified as T8B and T9, storing incoming raw material, permitted in 1994.

(v) One (1) 15,000 gallon vertical fixed roof liquid storage tank, identified as T12, for processing raw material, permitted in 1999.

(z) One (1) 12,000 gallon vertical fixed roof liquid storage tank, identified as IS 1, storing raw material, permitted in 2005.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product, permitted in 2005.

(bb) 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 (150oF) and each with a maximum storage capacity of 630,000 gallons, permitted in 2000.

(cc) 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 (150oF) and each with a maximum storage capacity of 110,000 gallons, permitted in 2000.

(ee) Three (3) scrubbers, identified as SC1, SC2 and SC3 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds, permitted in 2003 and 2010.

(ff) One (1) methanol recovery process, constructed in October 2008, and consisting of the following:

(1) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R4, constructed in October, 2008, with a maximum capacity of 6000 gallons per day.

(2) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R5, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

(3) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R6, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

Under New Source Performance Standard: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa), the pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing are considered affected sources.

(gg) One (1) 5,000 gallon vertical fixed roof reactor, identified as R7, storing raw material, permitted in 2010.

(hh) One (1) 6,000 gallon vertical fixed roof reactor, identified as R8, storing raw material, permitted in 2010.

(ii) One (1) 5,000 gallon vertical fixed roof still, consisting of Tank 8A with a condenser, identified as Still 1, storing raw material, permitted in 1994.

(jj) One (1) 2,000 gallon vertical fixed roof still, consisting of Tanks ST2A and ST2B, a heat exchanger and a condenser and are interconnected, identified as Still 2, storing raw material, permitted in 2010.

(kk) One (1) 6,000 gallon vertical fixed roof liquid storage tank, identified as SF4, storing raw material, permitted in 2010.

(ll) One (1) 9,000 gallon vertical fixed roof liquid storage tank, identified as SF5, storing raw material, permitted in 2010.

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

D.2.1 Record Keeping Requirements [326 IAC 8-9-6]

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), storage tanks as F1, F2, FP-1, FT1, FT2, R1, R2, R3, R4, R5, R6, S1, S2, S3, S4, S5, T1, T2, T3, T4, T5, T6, T7, T8A, T8B, T9, T12, S8, T10, T11, AF1, AF2, BF1, BF2, IS 1, R7, R8, Still 1, Still 2, SF4, and SF5 are subject to the following record keeping requirements.

(a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

(b) The owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the following information for each vessel:

(1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

(4) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.

SECTION E.1 **NSPS**

Emission Unit Description:

(ff) One (1) methanol recovery process, constructed in October 2008, and consisting of the following:

(1) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R4, constructed in October, 2008, with a maximum capacity of 6000 gallon per day.

(2) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R5, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

(3) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R6, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

Under New Source Performance Standard: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa), the pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing are considered affected sources.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-6.1-5(a)(1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart VVa.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.1.2 Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [40 CFR 60, Subpart VVa][326 IAC 12]

Pursuant to 40 CFR 60, Subpart VVa, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart VVa, which are incorporated by reference as 326 IAC 12 (included as Attachment A to this permit), for the above listed emissions units as specified as follows:

(1) 40 CFR 60.480a
(2) 40 CFR 60.481a
(3) 40 CFR 60.482-1a
(4) 40 CFR 60.482-2a
(5) 40 CFR 60.482-5a
(6) 40 CFR 60.482-8a
(7) 40 CFR 60.482-9a
(8) 40 CFR 60.482-10a
(9) 40 CFR 60.482-11a
(10) 40 CFR 60.483-1a
(11) 40 CFR 60.483-2a
(12) 40 CFR 60.484a
(13) 40 CFR 60.485a
(14) 40 CFR 60.486a
(15) 40 CFR 60.487a
(16) 40 CFR 60.488a
(17) 40 CFR 60.489a

SECTION E.2 **NSPS**

Emission Unit Description:

(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, identified as F5 through F9, storing finished product oil, permitted in 1999.

(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, identified as F10, storing No. 2 fuel oil, permitted in 1999.

(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, identified as F11, storing finished product oil, permitted in 1999.

(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as F12, storing finished product oil, permitted in 1994.

(m) One (1) 25,000 gallon horizontal fixed roof liquid storage tank, identified as F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, identified as F4, each storing finished product oil, permitted in 1994.

(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, identified as SF1 and SF2, storing raw material, permitted in 2005.

(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as SF3, storing raw material, permitted in 2005.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product, permitted in 2005.

(bb) 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 (150oF) and each with a maximum storage capacity of 630,000 gallons, permitted in 2000.

(cc) 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 (150oF) and each with a maximum storage capacity of 110,000 gallons, permitted in 2000.

(dd) 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 (150oF) and each with a maximum storage capacity of 25,000 gallons, permitted in 2000.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-6.1-5(a)(1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.2.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984NSPS [326 IAC 12][40 CFR Part 60, Subpart Kb]

Pursuant to 40 CFR Part 60, Subpart Kb the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Kb, which are incorporated by reference as 326 IAC 12 (included as Attachment B to this permit), for the above listed emissions units as specified as follows.

(1) 40 CFR 60.110b(a), (b)
(2) 40 CFR 60.111b
(3) 40 CFR 60.112b(a)(1), (a)(4)
(4) 40 CFR 60.113b(a)
(5) 40 CFR 60.114b
(6) 40 CFR 60.115b(a), (b)
(7) 40 CFR 60.116b
(8) 40 CFR 60.117b

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

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

Company Name:	**Beaver Oil Company, Inc.**
Address:	**1040 Michigan Street, Gary, Indiana 46402**
City:	**Gary**
Phone #:	**219-881-9234**
MSOP #:	**M089-34990-00151**

I hereby certify that Beaver Oil Company, Inc. is ☐ still in operation.
☐ no longer in operation.

I hereby certify that Beaver Oil Company, Inc. is ☐ in compliance with the requirements of M089-34990-00151.
☐ not in compliance with the requirements of M089-34990-00151.

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 - 317 233-6865

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:
_____

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

TYPE OF POLLUTANTS EMITTED: TSP, PM_{10}, SO_2, 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:

_____

_____

Attachment A

Minor Source Operating Permit (MSOP) No: M089-34990-00151

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

SOURCE: 72 FR 64883, Nov. 16, 2007, unless otherwise noted.

§ 60.480a Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in § 60.481a) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in § 60.486a(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) of a chemical listed in § 60.489 is exempt from §§ 60.482-1a through 60.482-11a.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§ 60.482-1a through 60.482-11a.

(4) Any affected facility that produces beverage alcohol is exempt from §§ 60.482-1a through 60.482-11a.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§ 60.482-1a through 60.482-11a.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* (i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§ 60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §§ 60.485a(d), (e), and (f), and 60.486a(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(1)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions

required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

(2) *Part 63, subpart H.* (i) Owners or operators may choose to comply with the provisions of 40 CFR part 63, subpart H, to satisfy the requirements of §§ 60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 63, subpart H, the requirements of § 60.485a(d), (e), and (f), and § 60.486a(i) and (j) still apply.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 63, subpart H must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 63, subpart H, except that provisions required to be met prior to implementing 40 CFR part 63 still apply. Owners and operators who choose to comply with 40 CFR part 63, subpart H, must comply with 40 CFR part 63, subpart A.

(f) *Stay of standards.* (1) Owners or operators that start a new, reconstructed, or modified affected source prior to November 16, 2007 are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER .

(i) The definition of “capital expenditure” in § 60.481a of this subpart. While the definition of “capital expenditure” is stayed, owners or operators should use the definition found in § 60.481 of subpart VV of this part.

(ii) [Reserved]

(2) Owners or operators are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER .

(i) The definition of “process unit” in § 60.481a of this subpart. While the definition of “process unit” is stayed, owners or operators should use the following definition:

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

(ii) The method of allocation of shared storage vessels in § 60.482-1a(g) of this subpart.

(iii) The standards for connectors in gas/vapor service and in light liquid service in § 60.482-11a of this subpart.

[72 FR 64883, Nov. 16, 2007, as amended at 73 FR 31375, June 2, 2008]

§ 60.481a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA) or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where:

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$A = Y \times (B \div 100)$;

(2) The percent Y is determined from the following equation: Y = 1.0 − 0.575 log X, where X is 2006 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable Value for B

Subpart applicable to facility	Value of B to be used in equation
VVa	12.5
GGGa	7.0

Closed-loop system means an enclosed system that returns process fluid to the process.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers for purged liquids must be covered or closed when not being filled or emptied.

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, P.O. Box 2300, Fairfield, NJ 07007-2300).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.485a(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa) (0.7 psia) below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of § 60.485a(d) specify how to determine that a piece of equipment is not in VOC service.)

Initial calibration value means the concentration measured during the initial calibration at the beginning of each day required in § 60.485a(b)(1), or the most recent calibration if the instrument is recalibrated during the day (i.e., the calibration is adjusted) after a calibration drift assessment.

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels (except as specified in § 60.482-1a(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:

(1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours.

(2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.

(3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§ 60.482-2a(b)(2)(ii) and (d)(6)(ii) and (d)(6)(iii), 60.482-3a(f), and 60.482-10a(f)(1)(ii), is re-monitored as specified in § 60.485a(b) to verify that emissions from the equipment are below the applicable leak definition.

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Storage vessel means a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges or ships.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in § 60.489.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are used to fill tank trucks and/or railcars with organic liquids.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in § 60.2 Definitions.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in § 60.481a, the definitions of “capital expenditure” and “process unit” were stayed until further notice.

§ 60.482-1a Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1a through 60.482-10a or § 60.480a(e) for all equipment within 180 days of initial startup.

(b) Compliance with §§ 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485a.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§ 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in § 60.484a.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§ 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482-2a through 60.482-10a if it is identified as required in § 60.486a(e)(5).

(e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of §§ 60.482-2a through 60.482-11a if it is identified as required in § 60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section.

(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.

(2) The equipment is in VOC service only during process malfunctions or other emergencies.

(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in §§ 60.482-2a, 60.482-7a, and 60.483.2a:

Operating time (percent of hours during year)	Equivalent monitoring frequency time in use		
	Monthly	**Quarterly**	**Semiannually**
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three quarters	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (*i.e.* , once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to this subpart, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to this subpart of this part, the storage vessel is assigned to any process unit subject to subpart VV of this part. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in § 60.482-1a, paragraph (g) was stayed until further notice.

§ 60.482-2a Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b), except as provided in § 60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first

time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in § 60.482-1a(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in § 60.482-1a(f).

(b)(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

(ii) 2,000 ppm or greater for all other pumps.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable.

(i) Monitor the pump within 5 days as specified in § 60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met.

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10a; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection.

(A) Monitor the pump within 5 days as specified in § 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.

(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing;

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485a(c); and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482-10a, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

§ 60.482-3a Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in § 60.482-1a(c) and paragraphs (h), (i), and (j) of this section.

(b) Each compressor seal system as required in paragraph (a) of this section shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10a; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) of this section shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of § 60.482-10a, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a) through (h) of this section if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in § 60.485a(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of § 60.14 or § 60.15 is exempt from paragraphs (a) through (e) and (h) of this section, provided the owner or operator

demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

§ 60.482-4a Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485a(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9a.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485a(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482-10a is exempted from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482-9a.

§ 60.482-5a Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in § 60.482-1a(c) and paragraph (c) of this section.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10a.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§ 60.482-6a Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1a(c) and paragraphs (d) and (e) of this section.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

§ 60.482-7a Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c) and (f), and §§ 60.483-1a and 60.483-2a.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c), and §§ 60.483-1a and 60.483-2a.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with § 60.483-1a or § 60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in § 60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in § 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485a(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section, and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in § 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either:

(i) Becomes an affected facility through § 60.14 or § 60.15 and was constructed on or before January 5, 1981; or

(ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§ 60.482-8a Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §§ 60.482-2a(c)(2) and 60.482-7a(e).

§ 60.482-9a Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves and connectors will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10a.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

§ 60.482-10a Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of § 60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 60.485a(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 60.485a(b); and

(ii) Conduct annual inspections according to the procedures in § 60.485a(b).

(g) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§ 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486a(c).

(4) For each inspection conducted in accordance with § 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

§ 60.482-11a Standards: Connectors in gas/vapor service and in light liquid service.

(a) The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) Except as allowed in § 60.482-1a(c), § 60.482-10a, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in § 60.485a(b) and, as applicable, § 60.485a(c).

(2) If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

(3) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent of leaking connectors within the total monitored connectors.

(C) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:

$\%C_L = C_L / C_t * 100$

Where:

$\%C_L$ = Percent of leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (iii) of this section.

C_L = Number of connectors measured at 500 ppm or greater, by the method specified in § 60.485a(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected pursuant to paragraphs (a) and (b) of this section, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section if:

(1) The owner or operator of the connector demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (a) and (b) of this section; and

(2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (d) of this section if a leak is detected.

(f) *Inaccessible, ceramic, or ceramic-lined connectors* . (1) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§ 63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (f)(1)(i) through (vi) of this section, as applicable:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

(g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph (f) of this section, identify the connectors subject to the requirements of this subpart. Connectors need

not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, § 60.482-11a was stayed until further notice.

§ 60.483-1a Alternative standards for valves—allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487a(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with § 60.482-7a(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in § 60.485a(b).

(2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in § 60.485a(h).

§ 60.483-2a Alternative standards for valves—skip period leak detection and repair.

(a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in § 60.487(d)a.

(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in § 60.482-7a.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in § 60.482-7a but can again elect to use this section.

(5) The percent of valves leaking shall be determined as described in § 60.485a(h).

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

(7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with § 60.482-7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

§ 60.484a Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4) of this section.

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER .

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the CAA.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§ 60.485a Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§ 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of this part. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

(c) The owner or operator shall determine compliance with the no-detectable-emission standards in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 of appendix A-7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 of appendix A-7 of this part shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$V_{max} = K_1 + K_2 H_T$

Where:

V_{max} = Maximum permitted velocity, m/sec (ft/sec).

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units).

K_2 = 0.7084 m^4 /(MJ-sec) (metric units) = 0.087 ft^4 /(Btu-sec) (English units).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

K = Conversion constant, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units).

C_i = Concentration of sample component "i," ppm

H_i = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole.

(5) Method 18 of appendix A-6 of this part or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference-see § 60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference-see § 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D of appendix A-7 of this part, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with § 60.483-1a or § 60.483-2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$\%V_L = (V_L / V_T) * 100$

Where:

$\%V_L$ = Percent leaking valves.

V_L = Number of valves found leaking.

V_T = The sum of the total number of valves monitored.

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with § 60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

§ 60.486a Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a.

(i) Monitoring instrument identification.

(ii) Operator identification.

(iii) Equipment identification.

(iv) Date of monitoring.

(v) Instrument reading.

(b) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482-7a(c) and no leak has been detected during those 2 months.

(3) The identification on a connector may be removed after it has been monitored as specified in § 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring.

(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in § 60.482-10a shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in § 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

(e) The following information pertaining to all equipment subject to the requirements in §§ 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).

(ii) The designation of equipment as subject to the requirements of § 60.482-2a(e), § 60.482-3a(i), or § 60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482-4a.

(4)(i) The dates of each compliance test as required in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with § 60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and § 60.485a(b).

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.

(v) Results of each calibration drift assessment required by § 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) The connector monitoring schedule for each process unit as specified in § 60.482-11a(b)(3)(v).

(10) Records of each release from a pressure relief device subject to § 60.482-4a.

(f) The following information pertaining to all valves subject to the requirements of § 60.482-7a(g) and (h), all pumps subject to the requirements of § 60.482-2a(g), and all connectors subject to the requirements of § 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with § 60.483-2a:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§ 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in § 60.480a(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of § 60.7(b) and (d) do not apply to affected facilities subject to this subpart.

§ 60.487a Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of § 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of § 60.482-7a(f).

(3) Number of pumps subject to the requirements of § 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of § 60.482-2a(e) and those pumps complying with § 60.482-2a(f).

(4) Number of compressors subject to the requirements of § 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of § 60.482-3a(i) and those compressors complying with § 60.482-3a(h).

(5) Number of connectors subject to the requirements of § 60.482-11a.

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486a:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in § 60.482-7a(b) or § 60.483-2a,

(ii) Number of valves for which leaks were not repaired as required in § 60.482-7a(d)(1),

(iii) Number of pumps for which leaks were detected as described in § 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in § 60.482-2a(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in § 60.482-3a(f),

(vi) Number of compressors for which leaks were not repaired as required in § 60.482-3a(g)(1),

(vii) Number of connectors for which leaks were detected as described in § 60.482-11a(b)

(viii) Number of connectors for which leaks were not repaired as required in § 60.482-11a(d), and

(ix)-(x) [Reserved]

(xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§ 60.483-1a or 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with § 60.8 of the General Provisions. The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the state.

§ 60.488a Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under § 60.15: Pump seals, nuts and bolts, rupture disks, and packings.

(b) Under § 60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in § 60.488a(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

§ 60.489a List of chemicals produced by affected facilities.

Process units that produce, as intermediates or final products, chemicals listed in § 60.489 are covered under this subpart. The applicability date for process units producing one or more of these chemicals is November 8, 2006.

Attachment B

Minor Source Operating Permit (MSOP) No: M089-34990-00151

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

SOURCE: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

§ 60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§ 60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of § 60.116b(c), (e), (f)(1), and (g) still apply.

Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 78275, Dec. 14, 2000; 68 FR 59332, Oct. 15, 2003]

§ 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see § 60.17); or

(2) As obtained from standard reference texts; or

(3) As determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17);

(4) Any other method approved by the Administrator.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference—see § 60.17).

Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;

(2) Subsurface caverns or porous rock reservoirs; or

(3) Process tanks.

Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all

times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in § 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in § 60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, § 60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§ 60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in § 60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in § 60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in § 60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”).

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

[52 FR 11429, Apr. 8, 1987, as amended at 62 FR 52641, Oct. 8, 1997]

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in § 60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of § 60.112b.

(a) After installing the control equipment required to meet § 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet § 60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of § 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator

shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in § 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, § 60.18 (e) and (f).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

§ 60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in § 60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in § 60.112b.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in § 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with § 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(1) and § 60.113b(a)(1). This report shall be an attachment to the notification required by § 60.7(a)(3).

(2) Keep a record of each inspection performed as required by § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in § 60.113b(a)(2) are detected during the annual visual inspection required by § 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in § 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of § 61.112b(a)(1) or § 60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with § 61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by § 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by § 60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by § 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by § 60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with § 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with § 60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with § 60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by § 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by § 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under § 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§ 60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at

ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see § 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in § 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference—see § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.117b Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§ 60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	**Beaver Oil Company, Inc.**
Source Location:	**1040 Michigan Street, Gary IN 46402**
County:	**Lake**
SIC Code:	**2992**
Permit Renewal No.:	**M089-34990-00151**
Permit Reviewer:	**Julie Alexander**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Beaver Oil Company, Inc. relating to the operation of a existing centralized waste treatment plant that produces secondary fuel and lubricating oil. On October 1, 2014, Beaver Oil Company, Inc. submitted an application to the OAQ requesting to renew its operating permit. Beaver Oil Company, Inc. was issued its first MSOP Renewal M089-18800-00151 on Januray 31, 2005.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) natural gas fired Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified Boiler-2, permitted in 1999.

(b) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, identified Boiler-1, permitted in 1999.

(c) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 8.37 million British thermal units per hour, identified as Boiler-3, permitted in 2002.

(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, identified as F5 through F9, storing finished product oil, permitted in 1999.

(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, identified as F10, storing No. 2 fuel oil, permitted in 1999.

(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, identified as F11, storing finished product oil, permitted in 1999.

(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as F12, storing finished product oil, permitted in 1994.

(h) One (1) 10,000 gallon vertical fixed roof liquid storage tank, identified as S8, storing incoming raw material, permitted in 1999.

(i) Two (2) 10,000 gallon vertical fixed roof liquid storage tanks, identified as T10 and T11, storing finished product oil, permitted in 2005.

(j) Two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, identified as AF1 and AF2, storing antifreeze (ethylene glycol), permitted in 1999.

(k) Two (2) 5,000 gallon vertical fixed roof liquid storage tanks, identified as BF1 and BF2, storing No. 2 fuel oil, permitted in 1999.

(l) Two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as F1 and F2, storing finished product oil, permitted in 1994.

(m) One (1) 25,000 gallon horizontal fixed roof liquid storage tank, identified as F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, identified as F4, each storing finished product oil, permitted in 1994.

(n) Three (3) horizontal fixed roof liquid storage tanks, identified as FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil, permitted in 1994.

(o) Three (3) vertical fixed roof liquid storage tanks, identified as R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material, permitted in 1994.

(p) Five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, identified as S1 through S5, storing incoming raw material, permitted in 1994.

(q) Two (2) 4700 gallon vertical fixed roof liquid storage tanks, identified as T1 and T2, for processing raw material, permitted in 1994.

(r) Three (3) 7050 gallon vertical fixed roof liquid storage tanks, identified as T3 through T5, storing incoming raw material, permitted in 1994.

(s) One (1) 7050 gallon vertical fixed roof liquid storage tank, identified as T6, storing wash water, permitted in 1999.

(t) One (1) 5325 gallon horizontal fixed roof liquid storage tank, identified as T7, storing incoming raw material, permitted in 1994.

(u) Two (2) 288 gallon vertical fixed roof liquid storage tanks, identified as T8B and T9, storing incoming raw material, permitted in 1994.

(v) One (1) 15,000 gallon vertical fixed roof liquid storage tank, identified as T12, for processing raw material, permitted in 1999.

(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, identified as SF1 and SF2, storing raw material, permitted in 2005.

(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as SF3, storing raw material, permitted in 2005.

(y) One (1) 2,120 gallon vertical fixed roof liquid storage tank, identified as E-W Sump Tank, storing process water, permitted in 2005.

(z) One (1) 12,000 gallon vertical fixed roof liquid storage tank, identified as IS 1, storing raw material, permitted in 2005.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product, permitted in 2005.

(bb) 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 (150oF) and each with a maximum storage capacity of 630,000 gallons, permitted in 2000.

(cc) 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 (150oF) and each with a maximum storage capacity of 110,000 gallons, permitted in 2000.

(dd) 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 (150oF) and each with a maximum storage capacity of 25,000 gallons, permitted in 2000.

(ee) Three (3) scrubbers, identified as SC1, SC2 and SC3 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds, permitted in 2003 and 2010.

(ff) One (1) methanol recovery process, constructed in October 2008, and consisting of the following:

(1) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R4, constructed in October 2008, with a maximum capacity of 6000 gallons per day.

(2) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R5, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

(3) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R6, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

Under New Source Performance Standard: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa), the pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing are considered affected sources.

(gg) One (1) 5,000 gallon vertical fixed roof reactor, identified as R7, storing raw material, permitted in 2010.

(hh) One (1) 6,000 gallon vertical fixed roof reactor, identified as R8, storing raw material, permitted in 2010.

(ii) One (1) 5,000 gallon vertical fixed roof still, consisting of Tank 8A with a condenser, identified as Still 1, storing raw material, permitted in 1994.

(jj) One (1) 2,000 gallon vertical fixed roof still, consisting of Tanks ST2A and ST2B, a heat exchanger and a condenser and are interconnected, identified as Still 2, storing raw material, permitted in 2010.

(kk) One (1) 6,000 gallon vertical fixed roof liquid storage tank, identified as SF4, storing raw material, permitted in 2010.

(ll) One (1) 9,000 gallon vertical fixed roof liquid storage tank, identified as SF5, storing raw material, permitted in 2010.

(mm) Two (2) 20,000 gallon vertical fixed roof liquid storage tank, identified as Tank 13 and Tank 14, storing raw material, permitted in 2010.

(nn) Paved and unpaved roads and parking lots with public access.

Existing Approvals

Since the issuance of the MSOP M089-18800-00151 on January 31, 2005, the source has constructed or has been operating under the following additional approvals:

(a) Minor Permit Revision No. 089-21810-00151, issued on November 3, 2005

(b) Notice-Only Change No. 089-23838-00151, issued on November 27, 2006

(c) Notice-Only Change No. 089-25774-00151, issued on January 28, 2008

(d) Minor Permit Revision No. 089-27475-00151, issued on March 4, 2009

(e) Notice-Only Change No. 089-29184-00151, issued on May 27, 2010

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O_3	40 CFR 81.315 as amended by 77 FR 34228.[1,2]
$PM_{2.5}$	Unclassifiable or attainment effective February 6, 2012, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.

Pollutant	Designation
PM_{10}	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
[1]Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005. [2]The department has filed a legal challenge to U.S. EPA's designation in 77 FR 34228.	

(a) Ozone Standards
U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, has identified Lake County as nonattainment for ozone. On August 1, 2012, the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective August 9, 2012. IDEM does not agree with U.S. EPA's designation of nonattainment. IDEM filed a suit against U.S. EPA in the U.S. Court of Appeals for the DC Circuit on July 19, 2012. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's designation. Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Therefore, VOC and NO_x emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

(b) $PM_{2.5}$
Lake County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

Since this source is classified as a chemical process plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	Less than 25
PM_{10}	Less than 25

Unrestricted Potential Emissions	
Pollutant	Tons/year
$PM_{2.5}$	Less than 25
SO_2	Less than 25
NO_x	Less than 25
VOC	Less than 25
CO	Less than 25
Single HAP	Less than 10
Total HAP	Less than 25

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

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

The potential to emit of each criteria pollutant is <25 tons per year, the potential to emit any single HAP is <10 tons per year, and the potential to emit any combination of HAP is <25 tons per year. However, the Permittee wishes to continue to operate under the MSOP program.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

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

Process/ Emission Unit	**Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)**							
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs
Boiler 1-3	0.17	0.70	0.70	0.06	9.17	0.50	7.70	0.17
Tanks	-	-	-	-	-	11.69	-	0.53
Equipment Leaks	-	-	-	-	-	0.10	-	0.10
Road	1.51	0.38	0.04	-	-	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)							
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs
Total PTE of Entire Source	**1.68**	**1.08**	**0.74**	**0.06**	**9.17**	**12.30**	**7.70**	**0.81**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25
PSD Major Source Thresholds	100	100	100	100	100	100	100	NA
Emission Offset Thresholds	-	-	-	-	100	100	-	NA

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of one hundred (100) tons per year or more and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

(d) These emissions are based upon 089-29184-00151.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

New Source Performance Standards (NSPS)

(b) Boiler-1, Boiler-2 and Boiler-3 are not subject to the requirements of the New Source Performance Standards of Performance for Fossil-Fuel-Fired Steam Generators, 326 IAC 12, (40 CFR 60.40, Subpart D), because the maximum heat input capacity for each of the

boilers is less than 250 million British thermal units per hour. Therefore, the requirements of the NSPS are not included in the permit.

(c) Boiler-1, Boiler-2 and Boiler-3 are not subject to the requirements of the New Source Performance Standards of Performance for Electric Utility Steam Generating Units, 326 IAC 12, (40 CFR 60.40Da, Subpart Da), because the maximum heat input capacity for each of the boilers is less than 250 million British thermal units per hour. Therefore, the requirements of the NSPS are not included in the permit.

(d) Boiler-1, Boiler-2 and Boiler-3 are not subject to the requirements of the New Source Performance Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 326 IAC 12, (40 CFR 60.40b, Subpart Db), because the maximum heat input capacity for each of the boilers is less than 100 million British thermal units per hour. Therefore, the requirements of the NSPS are not included in the permit.

(e) Boiler-1, Boiler-2 and Boiler-3 are not subject to the requirements of the New Source Performance Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because the maximum heat input capacity for each of the boilers is less than 10 million British thermal units per hour. Therefore, the requirements of the NSPS are not included in the permit.

(f) The requirements of the New Source Performance Standards for Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes, 40 CFR 60, Subpart RRR, are not included in the permit, because the source operates a methanol reactor process that is designed and operated as a batch operation. Pursuant to 40 CFR 60.700(c)(1), any reactor process designed and operated as a batch process is exempt from the requirements of 40 CFR 60, Subpart RRR.

(g) The requirements of the the New Source Performance Standards for Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Processes, 40 CFR 60, Subpart NNN, are not included in the permit, because the source operates methanol distillation units that are designed and operated as a batch operation. Pursuant to 40 CFR 60.660(c)(3), any distillation unit designed and operated as a batch process is exempt from the requirements of 40 CFR 60, Subpart NNN.

(h) The requirements of the New Source Performance Standards for Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, 40 CFR 60.480a, Subpart VVa, are included in this permit for pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing because the construction of this equipment was commenced after November 7, 2006.

The facility is a synthetic organic chemical manufacturing industry, because it produces methanol, which is listed in 40 CFR 60.489a. This units associated with this facility include:

- One (1) methanol recovery process, constructed in October 2008, and consisting of the following:

  (1) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R4, constructed in October 2008, with a maximum capacity of 6000 gallons per day.

  (2) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R5, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

  (3) One (1) Distillation Reactor with condenser for converting condensate to final product, identified as R6, constructed in October, 2008, with a maximum capacity of 3000 gallons per day.

Under New Source Performance Standard: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa), the pumps and valves, pressure relief devices, sampling connection systems, open-ended valves or lines, closed vent systems and control devices associated with the synthetic organic chemicals manufacturing are considered affected sources.

Applicable portions of the NSPS are the following:

(1) 40 CFR 60.480a
(2) 40 CFR 60.481a
(3) 40 CFR 60.482-1a
(4) 40 CFR 60.482-2a
(5) 40 CFR 60.482-5a
(6) 40 CFR 60.482-8a
(7) 40 CFR 60.482-9a
(8) 40 CFR 60.482-10a
(9) 40 CFR 60.482-11a
(10) 40 CFR 60.483-1a
(11) 40 CFR 60.483-2a
(12) 40 CFR 60.484a
(13) 40 CFR 60.485a
(14) 40 CFR 60.486a
(15) 40 CFR 60.487a
(16) 40 CFR 60.488a
(17) 40 CFR 60.489a

(i) New Performance Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60.110b, Subpart Kb]

(1) The following tanks are not subject to requierments of 40 CFR 60, Subpart Kb because their storage capacities are less than 75 cubic meters (m^3) or 19,812 gallons:

Tank ID	Capacity of Each Tanks (gals)
T8B and T9	288
Still 2	2000

Tank ID	Capacity of Each Tanks (gals)
E-W Sump Tank	2120
AF1 and AF2	3000
R1 and R2	3600
FT-1	3854
FT-2	4171
T1 and T2	4700
FP-1	4894
BF1, BF2, R7, and Still 1	5000
T7	5325
R8 and SF5	6000
R3	6017
T3, T4, T5, and T6	7050
SF4	9000
S8, T10 and T11	10000
IS1	12000
T12	15000
F1, F2, S1, S2, S3, S4 and S5	15275

(2) Although the following tanks have a capacity of more then 75 cubic meters (m^3) or 19,812 gallons, they are still not subject to requierments of 40 CFR 60, Subpart Kb because they will store a mixture of surfactant and water that contains no VOL:

Tank ID	Capacity of Each Tanks (gals)
Tank 13	2000
Tank 14	2000

(3) The following liquid storage tanks are subject to 40 CFR Parts 60.110b, Subpart Kb) because the tanks were constructed after July 23, 1984, have capacities greater than 19,820 gallons (75 cubic meters) and store a VOL:

- Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, identified F5 through F9, storing finished product oil.
- One (1) 20,000 gallon vertical fixed roof liquid storage tank, identified F10, storing No. 2 fuel oil.
- One (1) 33,000 gallon vertical fixed roof liquid storage tank, identified F11, storing finished product oil.
- One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified F12, storing finished product oil.
- One (1) 25,000 gallon horizontal fixed roof liquid storage tank, identified F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, identified F4, each storing finished product oil.

- Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, identified as SF1 and SF2, storing raw material.

- One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as SF3, storing raw material.

- One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product.

- 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 (150oF) and a each with maximum storage capacity of 630,000 gallons.

- 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 (150oF) and a each with maximum storage capacity of 110,000 gallons.

- 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 (150oF) and a each with maximum storage capacity of 25,000 gallons.

Nonapplicable portions of the NSPS will not be included in the permit. The emission unit is subject to the following portions of Subpart Kb.

(1) 40 CFR 60.110b(a), (b)
(2) 40 CFR 60.111b
(3) 40 CFR 60.112b(a)(1), (a)(4)
(4) 40 CFR 60.113b(a)
(5) 40 CFR 60.114b
(6) 40 CFR 60.115b(a), (b)
(7) 40 CFR 60.116b
(8) 40 CFR 60.117b

(j) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(k) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, are not included in the permit, because the source is not a major sources of HAPs.

(l) The requirements fo the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, are not included in the permit, because the boilers located at the source are all gas-fired boilers and exempt.

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, 40 CFR 63, Subpart VVVVVV, are not included in the permit, because the only HAP is present in the CMPU are neither listed, used as feedstock, generateed as a byproduct or present in liquid process or waste streams.

(n) The requirements fo the National Emission Standards for Hazardous Air Pollutants for Area Sources: Chemical Preparations Industry, 40 CFR 63, Subpart BBBBBBB, are not included in the permit, because the source's SIC code does not fall into the NAICS code 325998.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

326 IAC 1-5-2 (Emergency Reduction Plans)
The source is subject to 326 IAC 1-5-2.

326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is located in Lake County but emits less than 25 tons per year of VOC and NOx, but its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(2)

326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 PM Limitations for Lake County
This source is located in Lake County, however its PM PTE (or limited PM PTE) is less than 100 tons/year and actual emissions are less than 10 tons/year; therefore, 326 IAC 6.8 is not applicable to the source.

State Rule Applicability – Individual Facilities

326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

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

Where:

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

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation .

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date	Operating Capacity (MMBtu/hr)	Q (MMBt/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Boiler-1	1999	8.37	12.56	0.565	0.565	0.002
Boiler-2		4.19		0.565	0.565	0.002
Boiler-3	2002	8.37	20.93	0.494	0.494	0.002
Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.						

326 IAC 7 (Sulfur Dioxide Emission Limitations)
Boiler-1, Boiler-2, and Boiler-3 are not subject to 326 IAC 7 because the emission units do not have the potential to emit more then 25 tons per year or 10 pounds per hour of sulfur dioxide.

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

(a) Pursuant to 326 IAC 8-9-1, stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule. The following tanks are subject to 326 IAC 8-9-6(a) and (b):

Tank ID	**Capacity of Each Tanks (gals)**
T8B and T9	288
Still 2	2,000
R5, R6, AF1 and AF2	3,000
R1 and R2	3,600
FT-1	3,854
FT-2	4,171
T1 and T2	4,700
FP-1	4,894
BF1, BF2, R7, and Still 1	5,000
T7	5,325
R4, R8 and SF5	6,000
R3	6,017
T3, T4, T5, and T6	7,050
SF4	9,000
S8, T10 and T11	10,000
IS1	12,000
T12	15,000
F1, F2, S1, S2, S3, S4 and S5	15,275

Beaver Oil Company, Inc must perform the following activities for the above tanks:

(1) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

(2) The owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the following information for each vessel:

(A) The vessel identification number.

(B) The vessel dimensions.

(C) The vessel capacity.

(D) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.

(b) Pursuant to 326 IAC 8-9-2(8), stationary vessels that are subject to any provision of 40 CFR 60, Subpart Kb, New Source Performance Standard for Volatile Organic Liquid Storage, are exempt from the provisions of this rule. The following tanks fall into this exemption:

Tank ID	Capacity of Each Tanks (gals)
F10	20,000
F-13, F-14, F-15, F-16, F-17, F-18, F3, F4, F5, F6, F7, F8, F9, SF1 and SF2	25,000
F12 and SF3	30,000
F11	33,000
FP-4 and FP-5	110,000
FP-2 and FP-3	630,000
FP6	1,000,000

(c) 326 IAC 8-9 applies to all stationary vessels used to store volatile organic liquid (VOL) that are located in Lake County. The following stationary storage tank store a mixture of surfactant and water which contains no VOL and are not subject to 326 IAC 8-9:

Tank ID	Capacity of Each Tanks (gals)
E-W Sump Tank	2,120
Tank 13 and Tank 14	2,000

326 IAC 12
The source is subject to 326 IAC 12 because it is subject to 40 CFR 60, Subpart Kb.

Compliance Determination and Monitoring Requirements

There is no compliance determination and monitoring requirements in this permit.

Proposed Changes

The changes listed below have been made to Minor Source Operating Permit No. M089-34990-00151. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Summary of IDEM Updates Throughout the Permit

(a) IDEM, OAQ has decided to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address.

(b) Effective May 11, 2010 all Indiana Counties were identified as attainment for the 8-hour ozone standard.

(c) Section B - Preventive Maintenance Plan
IDEM, OAQ has decided to clarify Section B - Preventive Maintenance Plan.

(d) Section C - Instrument Specifications
IDEM has clarified Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

(e) Section C - General Record Keeping Requirements
The voice of paragraph (c) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.

(f) The word "status" has been added to the Record Keeping Requirements and Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.

Section A - Modifications

Section A has been revised to incorporate the approriate IDEM updates detailed above under "Summary of IDEM Updates Throughout the Permit."

Section A has been Modified as follows:

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.
***

General Source Phone **Number**:	219-881-9234

***

Source Location Status:	~~Moderate~~ Nonattainment for 8-hour ozone **standard** ~~Nonattainment for $PM_{2.5}$~~ Attainment ~~area~~ for all other criteria pollutants
Source Status:	Minor Source Operating Permit **Program** Minor Source, under PSD and ~~Nonattainment NSR;~~ **Emission Offset Rules**

***

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source ~~is approved to operate~~ **consists of** the following ~~emissions~~ **emission** units and pollution control devices:

(a) One (1) **natural gas fired** Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, ~~designated~~ **identified** Boiler-2, ~~having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content,~~ **permitted in 1999**.

(b) One (1) **natural gas fired** Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, ~~designated~~**identified** Boiler-1, ~~having the capacity to burn natural gas and No.2 fuel oil with 0.5% sulfur content,~~ **permitted in 1999**.

(c) One (1) **natural gas fired** Johnston boiler with a maximum heat input rate of 8.37 million British thermal units per hour, ~~designated~~**identified** as Boiler-3, ~~having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content, and constructed~~**permitted** in 2002.

(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** F5 through F9, storing finished product oil**, permitted in 1999**.

(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** F10, storing No. 2 fuel oil**, permitted in 1999**.

(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** F11, storing finished product oil**, permitted in 1999**.

(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** F12, storing finished product oil**, permitted in 1994**.

(h) One (1) 10,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** S8, storing incoming raw material**, permitted in 1999**.

(i) Two (2) 10,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** T10 and T11, storing finished product oil**, permitted in 2005**.

(j) Two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** AF1 and AF2, storing antifreeze (ethylene glycol~~).~~**), permitted in 1999.**

(k) Two (2) 5,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** BF1 and BF2, storing No. 2 fuel oil**, permitted in 1999**.

(l) Two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** F1 and F2, storing finished product oil**, permitted in 1994**.

(m) One (1) 25,000 gallon horizontal fixed roof liquid storage tank, ~~designated~~**identified as** F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** F4, each storing finished product oil**, permitted in 1994**.

(n) Three (3) horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil~~;~~**, permitted in 1994.**

(o) Three (3) vertical fixed roof liquid storage tanks, ~~designated~~**identified as** R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material**, permitted in 1994**.

(p) Five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** S1 through S5, storing incoming raw material~~;~~**, permitted in 1994.**

(q) Two (2) 4700 gallon vertical fixed roof liquid storage tanks, ~~designated~~ **identified as** T1 and T2, for processing raw material~~;~~**, permitted in 1994.**

(r) Three (3) 7050 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** T3 through T5, storing incoming raw material**, permitted in 1994**.

(s) One (1) 7050 gallon vertical fixed roof liquid storage tank, ~~designated~~ **identified as** T6, storing wash water**, permitted in 1999**.

(t) One (1) 5325 gallon horizontal fixed roof liquid storage tank, ~~designated~~ **identified as** T7, storing incoming raw material~~;~~**, permitted in 1994.**

(u) Two (2) 288 gallon vertical fixed roof liquid storage tanks, **identified as** T8B and T9, storing incoming raw material**, permitted in 1994**.

(v) One (1) 15,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** T12, for processing raw material**, permitted in 1999**.

(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified** as SF1 and SF2, storing raw material**, permitted in 2005**.

(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as SF3, storing raw material**, permitted in 2005**.

(y) One (1) 2,120 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as E-W Sump Tank, storing process water**, permitted in 2005**.

(z) One (1) 12,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as IS 1, storing raw material**, permitted in 2005**.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as FP6, storing finished product**, permitted in 2005**.

(bb) 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 (150oF) and **each with** a maximum storage capacity of 630,000 gallons**, permitted in 2000**.

(cc) 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 (150oF) and **each with** a maximum storage capacity of 110,000 gallons**, permitted in 2000**.

(dd) 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 (150oF) and **each with** a maximum storage capacity of 25,000 gallons**, permitted in 2000**.

(ee) Three (3) scrubbers, identified as SC1, SC2 and SC3 to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds~~.~~**, permitted in 2003 and 2010.**

***

(gg) One (1) 5,000 gallon vertical fixed roof reactor, ~~designated~~**identified** as R7, storing raw material**, permitted in 2010**.

(hh) One (1) 6,000 gallon vertical fixed roof reactor, ~~designated~~**identified** as R8, storing raw material**, permitted in 2010**.

(ii) One (1) 5,000 gallon vertical fixed roof still, consisting of Tank 8A with a condenser, ~~designated~~**identified** as Still 1, storing raw material**, permitted in 1994**.

(jj) One (1) 2,000 gallon vertical fixed roof still, consisting of Tanks ST2A and ST2B, a heat exchanger and a condenser and are interconnected, ~~designated~~**identified** as Still 2, storing raw material**, permitted in 2010**.

(kk) One (1) 6,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as SF4, storing raw material**, permitted in 2010**.

(ll) One (1) 9,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as SF5, storing raw material**, permitted in 2010**.

(mm) Two (2) 20,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as Tank 13 and Tank 14, storing raw material**, permitted in 2010**.

(nn) Paved and unpaved roads and parking lots with public access.

Section B and C - Modifications

Section B and C has been revised to incorporate the approriate IDEM updates detailed above under "Summary of IDEM Updates Throughout the Permit."

Section B and C has been Modified as follows:

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

(a) This permit, M089-~~29184~~**34990**-00151, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) ***

***

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

~~(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:~~

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

***

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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~~**c**) ***

(~~c~~**d**) ***

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M089-~~29184~~**34990**-00151 and issued pursuant to permitting programs approved into the state implementation plan have been either:

***

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

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

(b) ***

C.16 General Reporting Requirements [326 IAC 2-1.1-11][326 IAC 2-6.1-2][IC 13-14-1-13]

***

(c) ~~The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, 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 - Modifications

(a) 326 IAC 6-2-4 has been updated in the permit.

(b) The source is not subject to 326 IAC 7 and D.1.2, D.1.4, and D.1.6 (a) [now D.1.4(a)] has been removed.

(c) Section D.1 has been revised to incorporate the approriate IDEM updates detailed above under "Summary of IDEM Updates Throughout the Permit."

Section D.1 has been Modified as follows:

***

~~(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 natural gas and No. 2 fuel oil with 0.5% sulfur content.~~

(~~b~~**(a**) One (1) **natural gas fired** Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, ~~designated~~ **identified** Boiler-2, ~~having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content,~~ **permitted in 1999**.

(b) One (1) natural gas fired Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, identified Boiler-1, permitted in 1999.

(c) One (1) **natural gas fired** Johnston boiler with a maximum heat input rate of 8.37 million British thermal units per hour, ~~designated~~**identified** as Boiler-3, ~~having the capacity to burn natural gas and No. 2 fuel oil with 0.5% sulfur content, and constructed~~**permitted** in 2002.

***

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, one (1) Cleaver-Brooks boiler, identified as Boiler -2, and one (1) Johnston boiler, identified as Boiler-3,~~**the following units** shall be limited to ~~0.60, 0.56, and 0.49~~**Pt** pounds per MMBtu heat input, ~~respectively.~~**as follows:**

Emission Unit	Unit ID	Pt (lb/MMBtu)
Johnston boiler	**Boiler-1**	**0.565**
Cleaver Brooks boiler	**Boiler-2**	**0.565**
Johnston boiler	**Boiler-3**	**0.494**

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

~~The three (3) boilers, identified as Boiler-1, Boiler-2, and Boiler-3, shall each burn fuel oil with no higher than 0.5% sulfur when burning No.2 fuel oil.~~

D.1.~~2~~**3** Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for ~~this facility~~ **these facilities** and ~~its~~ **any** control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

~~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 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.~~

D.1.~~5~~**3** Visible Emissions Notations

(a) Visible emission notations of **the** boiler stack ~~exhausts~~ **exhaust** shall be performed once per day during normal daylight operations when combusting fuel oil~~.~~ **and exhausting to the atmosphere.** A trained employee shall record whether emissions are normal or abnormal.

***

(e) If abnormal emissions are observed, the Permittee shall take ~~a~~ reasonable response~~.~~ **steps in accordance with** Section C **-** Response to Excursions ~~and~~**or** Exceedances ~~contains the Permittee's obligation with regard to the reasonable response steps required by this condition.~~**.** Failure to take response steps **in accordance with Section C - Response to Excursions or Exceedances** shall be considered a deviation from this permit.

D.1.~~6~~ **4** 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 SO_2 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.~~

(**a**~~b~~) To document **the** compliance **status** with Condition D.1.~~5~~**3**, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per day when combusting fuel oil. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(**b**~~c~~) ~~All records shall be maintained in accordance with~~ Section C - General Record Keeping Requirements~~, of this permit~~ **contains the Permittee's obligation with regard to the records required by this condition**.

D.1.~~7~~**6** Reporting Requirements

~~In order~~**A quarterly report of the natural gas boiler certification and a quarterly summary of the information** to document the compliance status with ~~Condition~~ D.1.6 ~~, the natural gas boiler~~

~~certification~~ shall be submitted ~~within~~**not later than** thirty (30) days after the end of the ~~six (6) month period~~**quarter** being reported. Section C - General Reporting ~~Requirements~~ contains the ~~Permittee's~~**Permittee's** obligation with regard to the reporting required by this condition.

Section D.2 - Modifications

(a) Tanks that are not subject to 326 IAC 8-9 have been removed from the Section D.2.

(b) 40 CFR 60, Subpart Kb has been moved to Section E.2.

(c) Section D.2 has been revised to incorporate the approriate IDEM updates detailed above under "Summary of IDEM Updates Throughout the Permit."

Section D.2 has been Modified as follows:

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

****

~~(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil.~~

~~(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil.~~

~~(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil.~~

~~(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil.~~

(h) One (1) 10,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** S8, storing incoming raw material**, permitted in 1999**.

(i) Two (2) 10,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** T10 and T11, storing finished product oil**, permitted in 2005**.

(j) Two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** AF1 and AF2, storing antifreeze (ethylene glycol~~).~~**), permitted in 1999.**

(k) Two (2) 5,000 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** BF1 and BF2, storing No. 2 fuel oil**, permitted in 1999**.

(l) Two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** F1 and F2, storing finished product oil**, permitted in 1994**.

~~(m) 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.~~

(n) Three (3) horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil**, permitted in 1994**.

(o) Three (3) vertical fixed roof liquid storage tanks, ~~designated~~**identified as** R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material**, permitted in 1994**.

(p) Five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, ~~designated~~**identified as** S1 through S5, storing incoming raw material**, permitted in 1994**.

(q) Two (2) 4700 gallon vertical fixed roof liquid storage tanks, ~~designated~~ **identified as** T1 and T2, for processing raw material**, permitted in 1994**.

(r) Three (3) 7050 gallon vertical fixed roof liquid storage tanks, ~~designated~~**identified as** T3 through T5, storing incoming raw material**, permitted in 1994**.

(s) One (1) 7050 gallon vertical fixed roof liquid storage tank, ~~designated~~ **identified as** T6, storing wash water**, permitted in 1999**.

(t) One (1) 5325 gallon horizontal fixed roof liquid storage tank, ~~designated~~ **identified as** T7, storing incoming raw material**, permitted in 1994**.

(u) Two (2) ~~5288~~**288** gallon vertical fixed roof liquid storage tanks, ~~designated,~~ **identified as** T8B and T9, storing incoming raw material**, permitted in 1994**.

(v) One (1) 15,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified as** T12, for processing raw material~~.~~

~~(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, designated as SF1 and SF2, storing raw material.~~

~~(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, designated as SF3, storing raw material.~~

~~(y) One (1) 2,120 gallon vertical fixed roof liquid storage tank, designated as E-W Sump Tank, storing process water~~**, permitted in 1999**.

(z) One (1) 12,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as IS 1, storing raw material**, permitted in 2005**.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as FP6, storing finished product**, permitted in 2005**.

(bb) 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 (150oF) and **each with** a maximum storage capacity of 630,000 gallons**, permitted in 2000**.

(cc) 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 (150oF) and **each with** a maximum storage capacity of 110,000 gallons**, permitted in 2000**.

~~(dd) 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 (150oF) and a maximum storage capacity of 25,000 gallons.~~

(ee) Three (3) scrubbers, identified as SC1 ~~and~~**,** SC2 **and SC3** to be connected to various processing and finished products tanks for reduction of odor from the bearing compounds~~.~~**, permitted in 2003 and 2010.**

***

(gg) One (1) 5,000 gallon vertical fixed roof reactor ~~tank, designated~~**, identified** as R7, storing raw material**, permitted in 2010**.

(hh) One (1) 6,000 gallon vertical fixed roof reactor ~~tank, designated~~**, identified** as R8, storing raw material**, permitted in 2010**.

(ii) One (1) 5,000 gallon vertical fixed roof still~~ tank~~**,** consisting of Tank 8A ~~and~~**with** a condenser, ~~designated~~**identified** as Still 1, storing raw material**, permitted in 1994**.

(jj) One (1) 2,000 gallon vertical fixed roof still~~ tank~~, consisting of Tanks ST2A and ST2B, ~~condenser and~~ a heat exchanger and **a condenser and** are interconnected, ~~designated~~**identified** as Still 2, storing raw material**, permitted in 2010**.

(kk) One (1) 6,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as SF4, storing raw material**, permitted in 2010**.

(ll) One (1) 9,000 gallon vertical fixed roof liquid storage tank, ~~designated~~**identified** as SF5, storing raw material**, permitted in 2010**.

~~(mm) Two (2) 20, 000 gallon vertical fixed roof liquid storage tanks, designated as Tank 13 and Tank 14, storing raw material.~~

***

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, T10, T11 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, F11, F12, FP-2, FP-3, FP-4, FP-5, F-13 to F-18, SF1, SF2, SF3, FP6 have record keeping and reporting requirements as stated in (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~~

~~D.2.2~~ Record Keeping Requirements [326 IAC 8-9-6]

~~(a)~~ Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), storage tanks identified as F1, F2, ~~FP1~~**FP-1**, FT1, FT2, R1, R2, R3, R4, R5, R6, S1, S2, ~~S2~~**S3**, S4, S5, T1, T2, T3, T4, T5, **T6,** T7, T8A, T8B, T9, T12, S8, T10, T11, AF1, AF2, BF1, BF2, IS 1, ~~T-10, FP-2, FP-3, FP-4, FP-5, F-13 to F-18, T-11,~~ R7, R8, Still 1, Still 2, SF4, ~~SF5, Tank 13,~~ and ~~Tank 14~~**SF5** are subject to the following record keeping requirements.

(~~1)~~ **a)** The ~~Permittee~~**owner or operator of each vessel subject to this rule** shall keep ~~copies of~~ all records required by this section~~, except~~ for ~~the record~~ **three (3) years unless specified otherwise. Records** required by ~~paragraph (2) below, for at least two (2) years. The record required by paragraph (2) below will~~ **subsection (b) shall** be ~~kept~~**maintained** for the life of the ~~source~~**vessel**.

~~(2) The Permittee shall keep readily accessible records showing~~

(b) The owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the ~~dimension of~~**following information for** each ~~storage~~ vessel~~,~~**:**

(1) **The vessel** identification number~~ and an analysis showing the~~ **.**

(2) **The vessel dimensions.**

(3) **The vessel** capacity~~ of each storage vessel~~.

(4) **A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.**

E Sections and Forms - Modifications

(a) IDEM, OAQ has revised the language in the E conditions to clarify the intent

(b) Section E.2 has been added to include the requirments of 40 CFR 60, Subpart Kb.

(c) E Sections and Forms has been revised to incorporate the approriate IDEM updates detailed above under "Summary of IDEM Updates Throughout the Permit."

E Sections and Forms has been Modified as follows:

SECTION E.1 **NSPS** ~~EMISSIONS UNIT OPERATION CONDITIONS 40 CFR 60, Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006~~

~~Facility~~ **Emission Unit** Description~~ [326 IAC 2-8-4(10)]~~:
***

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4 (1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]

(a) ~~The~~ **Pursuant to 40 CFR 60.1, the Permittee shall comply with the** provisions of 40 CFR **Part** 60, Subpart A – General Provisions, which are incorporated by reference ~~in~~**as** 326 IAC 12-1, ~~apply to the facilities described in this SECTION E.1,~~ **for the above listed emissions units,** except ~~when~~**as** otherwise specified in 40 CFR **Part** 60, Subpart VVa.

(b) Pursuant to 40 CFR 60.~~19~~**4**, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate ~~Ave.~~**Avenue**
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
~~MC61-53 IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.1.2 Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [40 CFR 60, Subpart VVa][326 IAC 12]

Pursuant to 40 CFR 60, Subpart VVa, the Permittee shall comply with the provisions of ~~Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006~~**40 CFR Part 60, Subpart VVa**, which are incorporated by reference as 326 IAC 12~~,~~ **(included as Attachment A to this permit), for the above listed emissions units** as specified as follows:
***

SECTION E.2 NSPS

Emission Unit Description:

(d) Five (5) 25,000 gallon vertical fixed roof liquid storage tanks, identified as F5 through F9, storing finished product oil.

(e) One (1) 20,000 gallon vertical fixed roof liquid storage tank, identified as F10, storing No. 2 fuel oil.

(f) One (1) 33,000 gallon vertical fixed roof liquid storage tank, identified as F11, storing finished product oil.

(g) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as F12, storing finished product oil.

(m) One (1) 25,000 gallon horizontal fixed roof liquid storage tank, identified as F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, identified as F4, each storing finished product oil.

(w) Two (2) 25,000 gallon vertical fixed roof liquid storage tanks, identified as SF1 and SF2, storing raw material.

(x) One (1) 30,000 gallon vertical fixed roof liquid storage tank, identified as SF3, storing raw material.

(aa) One (1) 1,000,000 gallon vertical fixed roof liquid storage tank, identified as FP6, storing finished product.

(bb) 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 (150oF) and a each with maximum storage capacity of 630,000 gallons.

(cc) 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 (150oF) and a each with maximum storage capacity of 110,000 gallons.

(dd) 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 (150oF) and a each with 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.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4 (1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.2.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984NSPS [326 IAC 12][40 CFR Part 60, Subpart Kb]

Pursuant to 40 CFR Part 60, Subpart Kb the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Kb, which are incorporated by reference as 326 IAC 12 (included as Attachment B to this permit), for the above listed emissions units as specified as follows.

(1) 40 CFR 60.110b(a), (b)
(2) 40 CFR 60.111b
(3) 40 CFR 60.112b(a)(1), (a)(4)
(4) 40 CFR 60.113b(a)
(5) 40 CFR 60.114b
(6) 40 CFR 60.115b(a), (b)
(7) 40 CFR 60.116b
(8) 40 CFR 60.117b

***

ANNUAL NOTIFICATION

***

***	
MSOP #:	~~089-18800-00151~~ **M089-34990-00151**

***

***

~~SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION~~

~~Source Name: Beaver Oil Co., Inc.~~
~~Source Address: 1040 Michigan Street, Gary, Indiana 46402~~
~~Mailing Address: 1040 Michigan Street, Gary, Indiana 46402~~
~~Permit No.: 089-21810-00151~~
~~***~~

Recommendation

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

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

An application for the purposes of this review was received on October 2, 2014.

Conclusion

The operation of this stationary centralized waste treatment plant that produces secondary fuel and lubricating oil shall be subject to the conditions of the attached MSOP Renewal No. M089-34990-00151.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Julie Alexander at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-1782 or toll free at 1-800-451-6027 extension 3-1782.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emission Calculations
PTE Summary

Company Name: Beaver Oil Company, Inc.
Address City IN Zip: 1040 Michigan Street, Gary, IN 46402
Permit No.: M089-34990-00151
Reviewer: Julie Alexander
Date: October 15, 2014

Uncontrolled Potential to Emit (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
Boiler 1-3	0.17	0.70	0.70	0.06	9.17	0.50	7.70	0.17
Tanks	-	-	-	-	-	11.69	-	0.53
Equipment Leaks	-	-	-	-	-	0.10	-	1.02E-01
Road	1.51	0.38	0.04	-	-	-	-	-
Total	**1.68**	**1.08**	**0.74**	**0.06**	**9.17**	**12.30**	**7.70**	**0.81**

** PM2.5 listed is direct PM2.5*

Potential to Emit after Control (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
Boiler 1-3	0.17	0.70	0.70	0.06	9.17	0.50	7.70	0.17
Tanks	-	-	-	-	-	11.69	-	0.53
Equipment Leaks	-	-	-	-	-	0.10	-	0.10
Road	1.51	0.38	0.04	-	-	-	-	-
Total	**1.68**	**1.08**	**0.74**	**0.06**	**9.17**	**12.30**	**7.70**	**0.81**

** PM2.5 listed is direct PM2.5*

Potential to Emit after Issuance (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
Boiler 1-3	0.17	0.70	0.70	0.06	9.17	0.50	7.70	0.17
Tanks	-	-	-	-	-	11.69	-	0.53
Equipment Leaks	-	-	-	-	-	0.10	-	0.10
Road	1.51	0.38	0.04	-	-	-	-	-
Total	**1.68**	**1.08**	**0.74**	**0.06**	**9.17**	**12.30**	**7.70**	**0.81**

** PM2.5 listed is direct PM2.5*

Appendix A: Emissions Calculations
Natural Gas Combustion Only

Company Name: Beaver Oil Company, Inc.
Address City IN Zip: 1040 Michigan Street, Gary, IN 46402
Permit No.: M089-34990-00151
Reviewer: Julie Alexander
Date: October 15, 2014

Emission Unit ID	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
Boiler-1	4.19	36.70
Boiler-2	8.37	73.32
Boiler-3	8.37	73.32
	20.93	183.35

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.7	0.7	0.1	9.2	0.5	7.7

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
PM2.5 emission factor is condensable and filterable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

	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	1.93E-04	1.10E-04	6.88E-03	1.65E-01	3.12E-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	4.58E-05	1.01E-04	1.28E-04	3.48E-05	1.93E-04
				Total HAPs	1.73E-01

Methodology
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Storage Tank Summary

Company Name: Beaver Oil Company, Inc.
Address City IN Zip: 1040 Michigan Street, Gary, IN 46402
Permit No.: M089-34990-00151
Reviewer: Julie Alexander
Date: October 15, 2014

Tank ID	Description	Material Stored	Temperature (deg. F)	Calculated vapor pressure (mm)	Capacity (gallons)	Annual Throughput (gallons)	Annual Losses (tons/yr)
AF1	horizontal fixed roof	antifreeze storage	ambient	N/A	3,000	N/A	N/A
AF2	horizontal fixed roof	antifreeze storage	ambient	N/A	3,000	N/A	N/A
BF1	vertical fixed roof	boiler fuel oil	ambient	N/A	5,000	N/A	N/A
BF2	vertical fixed roof	boiler fuel oil	ambient	N/A	5,000	N/A	N/A
E-W Sump Tank	vertical fixed roof	process water	N/A	N/A	2,120	N/A	N/A
F1	horizontal fixed roof	finished product	150	7.50	15,275	43,839	9.00E-04
F10	vertical fixed roof	fuel oil bulk storage	ambient	N/A	20,000	N/A	N/A
F11	vertical fixed roof	finished product	150	7.50	33,000	71,750	1.98E-03
F12	vertical fixed roof	finished product	150	7.50	30,000	71,750	1.80E-03
F-13	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F-14	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F-15	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F-16	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F-17	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F-18	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F2	horizontal fixed roof	finished product	150	7.50	15,275	43,839	9.00E-04
F3	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F4	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F5	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F6	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F7	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F8	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
F9	vertical fixed roof	finished product	150	7.50	25,000	71,750	1.50E-03
FP-1	horizontal fixed roof	finished product	150	7.50	4,894	13,988	2.90E-04
FP-2	vertical fixed roof	finished product	150	7.50	630,000	1,808,100	0.04
FP-3	vertical fixed roof	finished product	150	7.50	630,000	1,808,100	0.04
FP-4	vertical fixed roof	finished product	150	7.50	146,000	419,020	8.76E-03
FP-5	vertical fixed roof	finished product	150	7.50	146,000	419,020	8.76E-03
FP6	vertical fixed roof	finished product	150	7.50	1,000,000	2,118,060	0.04
FT-1	horizontal fixed roof	finished product	150	7.50	3,854	263,305	0.06
FT-2	horizontal fixed roof	finished product	150	7.50	4,174	285,167	0.06
IS1	vertical fixed roof	80% Methanol Mix	ambient	178.60	12,000	4,380,000	0.27
R1	vertical fixed roof	material in process	180	14.20	3,600	882,756	0.03
R2	vertical fixed roof	material in process	180	14.20	3,600	882,756	0.03
R3	vertical fixed roof	material in process	180	14.20	6,017	1,475,429	0.04
R4	vertical fixed roof	material in process (methanol)	250	N/A	2,000	4,380,000	2.97
R5	vertical fixed roof	material in process (methanol)	250	N/A	1,000	4,380,000	1.49
R6	vertical fixed roof	material in process (methanol)	250	N/A	1,000	4,380,000	1.49
R7	vertical fixed roof	material in process	250	N/A	5,000	1,825,000	0.44
R8	vertical fixed roof	material in process	250	N/A	5,000	2,190,000	0.44
S1	horizontal fixed roof	raw material	150	7.50	15,275	1,043,588	0.22
S2	horizontal fixed roof	35% Methanol Mix	ambient	82.30	15,275	4,380,000	0.22
S3	horizontal fixed roof	raw material	150	7.50	15,275	1,043,588	0.22
S4	horizontal fixed roof	raw material	150	7.50	15,275	1,043,588	0.22
S5	horizontal fixed roof	raw material	150	7.50	15,275	1,043,588	0.22
S8	vertical fixed roof	raw material	150	7.50	10,000	683,200	0.15
SF1	vertical fixed roof	raw material	150	7.50	25,000	1,708,000	0.36
SF2	vertical fixed roof	raw material	150	7.50	25,000	1,798,000	0.36
SF3	vertical fixed roof	raw material	150	7.50	30,000	2,049,600	0.44
SF4	vertical fixed roof	surfactant and water	ambient	N/A	6,000	12,000	0
SF5	vertical fixed roof	surfactant and water	ambient	N/A	9,000	18,000	0
Still 1	vertical fixed roof	material in process	250	N/A	1,000	4,380,000	0.44
Still 2	vertical fixed roof	material in process	250	N/A	2,000	3,650,000	0.44
T1	vertical fixed roof	material in process	180	7.50	4,700	1,152,487	0.03
T10	vertical fixed roof	process	180	14.20	13,000	3,187,730	0.09
T11	vertical fixed roof	process	180	14.20	13,000	3,187,730	0.09
T12	vertical fixed roof	material in process	180	14.20	15,000	3,678,150	0.11
T2	vertical fixed roof	material in process	180	7.50	4,700	1,152,487	0.03
T3	vertical fixed roof	raw material	150	7.50	7,050	481,656	0.10
T4	vertical fixed roof	raw material	150	7.50	7,050	481,656	0.10
T5	vertical fixed roof	raw material	150	7.50	7,050	481,656	0.10
T6	vertical fixed roof	soapy wash water	ambient	N/A	7,050	N/A	N/A
T7	horizontal fixed roof	raw material	150	7.50	5,325	363,804	0.08
T8B	vertical fixed roof	raw material	150	7.50	5,268	361,276	0.08
T9	vertical fixed roof	raw material	150	7.50	5,000	341,600	0.07
Tank 13	vertical fixed roof	material in process	180	14.20	20,000	N/A	0.03
Tank 14	vertical fixed roof	material in process	180	14.20	20,000	N/A	0.03
						TOTAL VOC EMISSIONS from all tanks (ton/yr)	**11.69**
						SINGLE HAP (Methanol) EMISSIONS from all tanks (ton/yr)	**0.43**
						TOTAL HAPs EMISSIONS from all tanks (ton/yr)	**0.53**

Note: Emissions from the tanks are provided by the source and are based on vapor pressure data determined through laboratory tests and U.S. EPA Tanks 4.0d calculations.

Appendix A: Emissions Calculations
Equipment Leaks

Company Name: Beaver Oil Company, Inc.
Address City IN Zip: 1040 Michigan Street, Gary, IN 46402
Permit No.: M089-34990-00151
Reviewer: Julie Alexander
Date: October 15, 2014

1. Fugitive VOC Emissions:

Process Stream	Equipment Component Source	Product	Component Count	Emission Factor (kg/comp.-hr)	Emission Factor (lb/comp.-hr)	Uncondensed Rate (lb/hr)	Subpart VVa Condenser Effectiveness 40 CFR 60.482-10a	Condensed Rate (lb/hr)	TOC Weight (%)	Emitted Water (lb/hr)	Emitted TOC (lb/hr)	Emitted TOC (ton/yr)
Methanol Recovery System	Pump Seals	Light Liquid	4	0.02	0.04	0.08	95.00%	3.98E-03	90.00%	3.98E-04	3.58E-03	0.02
	Pump Seals	Heavy Liquid	3	8.62E-03	0.02	0.03	95.00%	1.29E-03	90.00%	1.29E-04	1.16E-03	5.10E-03
	Connectors	All	2	1.83E-03	0.00	3.66E-03	95.00%	1.83E-04	90.00%	1.83E-05	1.65E-04	7.21E-04
	Sampling Connections	All	6	0.02	0.03	0.09	95.00%	4.50E-03	90.00%	4.50E-04	4.05E-03	0.02
	Agitator Seals	All	3	0.02	0.04	0.06	95.00%	2.99E-03	90.00%	2.99E-04	2.69E-03	0.01
					Total	**0.26**		**0.01**		**1.29E-03**	**0.01**	**0.05**

2. Fugitive HAP Emissions:

HAP	HAP Fraction*	Fugitive HAP Emissions (tons/yr)
Methanol	1.00	0.05
	Total	**0.05**

Methodology

* Component count given by source.

** Emission factors are from Protocol for Equipment leak Emission Estimates, EPA-453/R-95-017. Table 2-12.

Fugitive HAP Emissions (tons/yr) = Fugitive VOC Emissions (tons/yr) x HAP Fraction

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: **Beaver Oil Company, Inc.**
Address City IN Zip: **1040 Michigan Street, Gary, IN 46402**
Permit Number: **M089-34990-00151**
Reviewer: **Julie Alexander**
Date: **October 15, 2014**

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	10.0	1.0	10.0	30.0	300.0	300	0.057	0.6	207.4
Vehicle (leaving plant) (one-way trip)	10.0	1.0	10.0	30.0	300.0	300	0.057	0.6	207.4
		Totals	**20.0**		**600.0**			**1.1**	**414.8**

Average Vehicle Weight Per Trip = 30.0 tons/trip
Average Miles Per Trip = 0.06 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	30.0	30.0	30.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	7.27	1.85	0.19	lb/mile
Mitigated Emission Factor, Eext =	4.78	1.22	0.12	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.75	0.19	0.02	0.50	0.13	0.01
Vehicle (leaving plant) (one-way trip)	0.75	0.19	0.02	0.50	0.13	0.01
Totals	**1.51**	**0.38**	**0.04**	**0.99**	**0.25**	**0.03**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Brad Dow
Beaver Oil Company, Inc.
6037 Lenzi Ave.
Hodgkins, IL 60525

DATE: January 16, 2015

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

SUBJECT: Final Decision
Minor Source Operating Permit (MSOP) Renewal
089-34990-00151

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Roger Vintika, President
Suresh Rao, Environment, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

January 16, 2015

TO: Gary Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Beaver Oil Company, Inc.
Permit Number: 089-34990-00151

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 1/16/2015 Beaver Oil Company, Inc. 089-34990-00151 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Brad Dow Beaver Oil Company, Inc. 6037 Lenzi Ave Hodgkins IL 60525 (Source CAATS) VIA CERTIFIED MAIL USPS									
2		Roger Vintika President Beaver Oil Company, Inc. 6037 Lenzi Ave Hodgkins IL 60525 *(RO CAATS)*									
3		Suresh Rao Environment, Inc. 1752 West Armitage Court Addison IL 30101 *(Consultant)*									
4		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 *(Local Official)*									
5		Gary Mayors Office 401 Broadway # 203 Gary IN 46402 *(Local Official)*									
6		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 *(Health Department)*									
7		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 *(Affected Party)*									
8		Shawn Sobocinski 5950 Old Porter Rd Aprt 306 Portage IN 46368-1558 *(Affected Party)*									
9		Mark Coleman 8 Turret Rd. Portage IN 46368-1072 *(Affected Party)*									
10		Mr. Chris Hernandez Pipefitters Association, Local Union 597 45 N Ogden Ave Chicago IL 60607 *(Affected Party)*									
11		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 *(Affected Party)*									
12		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 *(Local Official)*									
13		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)									
14		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 *(Affected Party)*									
15		Mr. Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 *(Affected Party)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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Mail Code 61-53

IDEM Staff	VHAUN 1/16/2015 Beaver Oil Company, Inc. 089-34990-00151 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)									
2		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 *(Affected Party)*									
3		Gary City Council 401 Broadway # 209 Gary IN 46402 *(Local Official)*									
4		Peter Julovich City of Gary Dept. of Envrionmental Affairs 839 Broadway SuiteN206 Gary IN 46402 *(Local Official)*									
5		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 *(Affected Party)*									
6		Dubois Public Library 1835 Broadway Gary IN 46407 *(Library)*									
7		Ryan Dave 939 Cornwallis Munster IN 46321 *(Affected Party)*									
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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	
7			The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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