

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT**

**Shell Oil Products Company - Muncie Terminal
2000 East State Road 28
Muncie, Indiana 47302**

(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 in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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| Operation Permit No.: F035-7279-00018 | |
| Issued by: Paul Dubenetzky, Branch Chief Office of Air Management | Issuance Date: |

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and presented in the permit application.

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

The Permittee owns and operates a Bulk Petroleum Storage and Transfer Terminal.

Responsible Official: R. J. Sorge
Source Address: 2000 East State Road 28, Muncie, Indiana, 47302
Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
SIC Code: 5171
County Location: Delaware County
County Status: Attainment for all criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD

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

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

- (1) one (1) internal floating roof gasoline (or distillate) storage tank (M10), with a nominal capacity of 533,400 gallons, identified as Emission Unit (EU) 02, exhausting at one emission point identified as S/V 02 (tank constructed in 1946, internal floating roof installed in 1987);
- (2) one (1) internal floating roof gasoline (or distillate) storage tank (M11), with a nominal capacity of 894,600 gallons, identified as EU 03, exhausting at one emission point identified as S/V 03 (constructed in 1946);
- (3) one (1) fixed coned roof distillate storage tank (M21), with a nominal capacity of 520,800 gallons, identified as EU 04, exhausting at one emission point identified as S/V 04 (constructed in 1946);
- (4) one (1) internal floating roof gasoline (or distillate) storage tank (M71), with a nominal capacity of 550,200 gallons, identified as EU 05, exhausting at one emission point identified as S/V 05 (tank constructed in 1946, internal floating roof installed in 1992);
- (5) one (1) tank truck loading rack with four (4) loading arms, capable of bottom loading petroleum products (gasoline and distillates), with one (1) loading arm in distillates service and three (3) loading arms in gasoline service, identified as EU 07 exhausting through one (1) stack identified as S/V 07 (constructed in 1938) with emissions controlled by a Vapor Recovery Unit (VRU) listed in item (6) below.
- (6) one (1) carbon adsorption gasoline vapor recovery unit (VRU) identified as EU VRU, controlling emissions from the tank truck loading rack listed in item (5) above, exhausting through one (1) stack identified as S/V 07 and including fugitive emissions based on capture efficiency identified as F07 (constructed in 1997).
- (7) modification in the operation of the loading rack, (i.e., a change in the method of operation from one (1) loading arm in distillates service and three (3) loading arms in gasoline service to all four (4) arms in gasoline service).

- (8) installation of an internal floating roof on storage tank (M21) identified as EU 04, prior to the storage of gasoline in the tank. This proposed installation will allow the tank to store petroleum liquids (gasoline and/or distillates).

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

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

- (9) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight. (Identified by applicant as a Oil Fired Furnace.)
- (10) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. (Identified by applicant as a Slop Oil Hold Tank.)
- (11) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (12) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume. (Identified by applicant as (a) an Oil/Water Separator and (b) Contact Water Cistern.)
- (13) Paved and unpaved roads and parking lots with public access.
- (14) Activities or categories of activities with individual HAP emissions not previously identified. Including any unit emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:
 - (a) Tank M01 (IDEM ID No. 01) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (Identified as EU 08.)
 - (c) Tank M31 (IDEM ID No. 11) HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene. (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene, Xylene. (Identified as EU 06.)
- (15) Activities or categories of activities with a combination of HAP emissions not previously identified. Including any unit emitting greater than 1 pound per day but less than 12.5 pounds per day or 2.5 ton per year of any combination of HAPs:

- (a) Tank M01 (IDEM ID No. 01) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (Identified as EU 08.)
 - (c) Tank M31 (IDEM ID No. 11) HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene. (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene, Xylene. (Identified as EU 06.)
- (16) Other activities or categories not previously identified. Including:
- (a) Tank M01 (IDEM ID No. 01), (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08), (Identified as EU 08.)
 - (c) Tank M31 (IDEM ID No. 11), (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. (Identified as EU 06.)

The following emission units are listed as Out of Service, and may not be operated without prior OAM approval:

- (17) one (1) floating roof storage tank (M20), with a nominal capacity of 210,000 gallons, identified as EU 09;
- (18) one (1) fixed coned roof distillate storage tank (M30), with a nominal capacity of 21,000 gallons, identified as EU 10;
- (19) one (1) floating roof storage tank (M40), with a nominal capacity of 84,000 gallons, identified as EU 12;
- (20) one (1) fixed coned roof storage tank (M70), with a nominal capacity of 84,000 gallons, identified as EU 13;
- (21) one (1) fixed coned roof storage tank (M83), with a nominal capacity of 4,620,000 gallons, identified as EU 14.

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

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

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

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

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

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

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

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

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

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

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

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

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

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

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

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

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

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

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, 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.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. For information claimed to be confidential, the Permittee shall furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, the Permittee shall furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission units and associated emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

B.14 Emergency Provisions [326 IAC 2-8-12]

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

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM , by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

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

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

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

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(33).

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent.
- (c) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination

[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

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

B.17 Permit Renewal [326 IAC 2-8-3(h)]

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

Request for renewal shall be submitted to:

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

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

- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]
- (2) If IDEM, OAM upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

B.18 Administrative Permit Amendment [326 IAC 2-8-10]

- (a) An administrative permit amendment is a FESOP revision that makes changes of the type specified under 326 IAC 2-8-10(a).
- (b) An administrative permit amendment may be made by IDEM, OAM, consistent with the procedures specified under 326 IAC 2-8-10(b).
- (c) The Permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]

- (a) A permit modification is any revision to this permit that cannot be accomplished as an administrative permit amendment under 326 IAC 2-8-10.
- (b) Minor modification of this permit shall follow the procedures specified under 326 IAC 2-8-11(b), except as provided by 326 IAC 2-8-11(c).
- (c) An application requesting the use of minor modification procedures shall meet the requirements of 326 IAC 2-8-3(c) and shall include the information required in 326 IAC 2-8-11(b)(3)(A) through (D).
- (d) The Permittee may make the change proposed in its minor permit modification application immediately after it files such application provided that the change has received any approval required by 326 IAC 2-1. After the Permittee makes the change allowed under minor permit modification procedures, and until IDEM, OAM, takes any of the actions specified in 326 IAC 2-8-11(b)(5), the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it. [326 IAC 2-8-11(b)(6)]

B.20 Significant Permit Modification [326 IAC 2-8-11(d)]

- (a) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments.
- (b) Any significant change in existing monitoring permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions of this permit shall be considered significant.
- (c) Nothing in 326 IAC 2-8-11(d) shall be construed to preclude the Permittee from making changes consistent with 326 IAC 2-8 that would render existing permit compliance terms and conditions irrelevant.
- (d) Significant modifications of this permit shall meet all requirements of 326 IAC 2-8, including those for application, public participation, review by affected states and review by U.S. EPA, as they apply to permit issuance and renewal.

B.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]

Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated by U.S. EPA.

B.22 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

B.23 Operational Flexibility [326 IAC 2-8-15]

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

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

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

and

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

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

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

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

- (b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(33).

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

B.24 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.25 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-8-5(a)(4)]

B.26 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-8-10]

Pursuant to 326 IAC 2-1-6 and 2-8-10:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-8-10.
- (c) IDEM, OAM shall reserve the right to issue a new permit.

B.27 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing, or in a time period consistent with the fee schedule established in 326 IAC 2-8-16.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before the due date, the Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

B.28 Enhanced New Source Review [326 IAC 2]

The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any previously unpermitted facilities and such facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2 and A.3.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per three hundred sixty-five (365) consecutive day period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per three hundred sixty-five (365) consecutive day period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per three hundred sixty-five (365) consecutive day period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

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

All air pollution control equipment listed in this permit shall be operated at all times that the emission unit(s) vented to the control equipment are in operation, as described in Section D of this permit.

**C.7 Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18]
[40 CFR 61, Subpart M]**

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector be accredited is federally enforceable.

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by the IDEM, OAM.

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

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

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

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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

C.9 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

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 no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

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

in writing no more than ninety (90) days after receipt of this permit, with full justification of the reasons for inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.10 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than once (1) per eight hour shift, until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.12 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

C.13 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18-1] [40 CFR 61.140]

- (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 insure 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
 - (3) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).
- All required notifications shall be submitted to:
- Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

C.15 Compliance Monitoring Plan - Failure to Take Corrective Action [326 IAC 2-8-4(3)]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

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

C.17 Monitoring Data Availability

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)(B)]

- (a) Records of all required monitoring data and support information 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 kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.

- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) To affirm that the source has met all the requirements stated in this permit the source shall submit a Quarterly Compliance Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

- (2) An emergency as defined in 326 IAC 2-7-1(12); or
- (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

- (1) one (1) internal floating roof gasoline (or distillate) storage tank (M10), with a nominal capacity of 533,400 gallons, identified as Emission Unit (EU) 02, exhausting at one emission point identified as S/V 02 (tank constructed in 1946, internal floating roof installed in 1987);
- (2) one (1) internal floating roof gasoline (or distillate) storage tank (M11), with a nominal capacity of 894,600 gallons, identified as EU 03, exhausting at one emission point identified as S/V 03 (constructed in 1946);
- (3) one (1) fixed coned roof distillate storage tank (M21), with a nominal capacity of 520,800 gallons, identified as EU 04, exhausting at one emission point identified as S/V 04 (constructed in 1946); and
- (4) one (1) internal floating roof gasoline (or distillate) storage tank (M71), with a nominal capacity of 550,200 gallons, identified as EU 05, exhausting at one emission point identified as S/V 05 (tank constructed in 1946, internal floating roof installed in 1992).

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4(1)]

- (a) The sum of the throughputs of petroleum products (gasoline or distillates) through all four storage tanks is limited to 157,345,440 gallons per twelve (12) month period, rolled on a monthly basis.
- (b) During the first 12 months of operation under this permit, the sum of the throughputs shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 13,112,120 gallons per month.
- (c) This operating condition shall limit the potential to emit of volatile organic compound (VOC) emissions from the four tanks to 10.77 tons per twelve (12) month period rolled on a monthly basis. Therefore, the requirements of 326 IAC 2-7 do not apply.

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-8-5(1)]

Testing of this facility is not specifically required by this permit. However, this does not preclude testing requirements on this facility under 326 IAC 2-1-4(f) and 326 IAC 2-8-5(1).

D.1.3 Volatile Organic Compounds (VOC)

Compliance with the usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-4-3(a). IDEM, OAM, reserves the authority to determine compliance using Method 18, 25, or 25A in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

D.1.4 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be compiled monthly and shall be complete and sufficient to establish compliance with the usage limits and/or the VOC emission limits established in Condition D.1.1.

- (1) The throughput of petroleum products (gasoline and/or distillates) through each tank for each month. Records shall include those documents as necessary to verify the type and amount of throughput. Examples may include, but are not limited to, shipping documents, bills of lading, purchase orders, pipeline schedules, throughput summaries, Material Safety Data Sheets, and/or other records that document volumes of the specific regulated material transferred;
 - (2) The total throughputs of petroleum products (gasoline and/or distillates) through all four tanks per month;
 - (3) The 12 month rolling total throughputs of petroleum products (gasoline and/or distillates) through all four tanks;
 - (4) the types of volatile petroleum liquid stored;
 - (5) the maximum true vapor pressure of the liquid as stored; and
 - (6) the results of inspections performed on the storage vessels.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

- (5) one (1) tank truck loading rack with four (4) loading arms, capable of bottom loading petroleum products (gasoline and distillates), with one (1) loading arm in distillates service and three (3) loading arms in gasoline service, identified as EU 07 exhausting through one (1) stack identified as S/V 07 (constructed in 1938) with emissions controlled by a Vapor Recovery Unit (VRU) listed in item (6) below.
- (6) one (1) carbon adsorption gasoline vapor recovery unit (VRU) identified as EU VRU, exhausting through one (1) stack identified as S/V 07 and including fugitive emissions based on capture efficiency identified as F07 (constructed in 1997).

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4(1)]

- (a) The loading of petroleum products (gasoline) through the truck loading rack is limited to 157,345,440 gallons of gasoline per twelve (12) month period, rolled on a monthly basis.
- (b) During the first 12 months of operation under this permit, the loading of petroleum products shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 13,112,120 gallons per month of gasoline.
- (c) During the loading of gasoline the emissions from the VRU shall not exceed 35 milligrams of total organic compounds per liter of gasoline loaded.
- (d) This operating limit shall limit total volatile organic compound (VOC) emissions from loading gasoline on the truck loading rack emitted through the VRU stack S/V 07 to 22.98 tons per twelve (12) month period rolled on a monthly basis and fugitive emissions identified as F07 to 5.78 tons per twelve (12) month period rolled on a monthly basis.
- (e) The loading of distillates through the truck loading rack is limited to 157,345,440 gallons of distillates per twelve (12) month period, rolled on a monthly basis.
- (f) During the first 12 months of operation under this permit, the loading of petroleum products shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 13,112,120 gallons per month of distillates.
- (g) This operating condition shall limit the potential to emit of volatile organic compound (VOC) emissions from loading distillates on the truck loading rack without being controlled by the VRU to 1.19 tons per twelve (12) month period rolled on a monthly basis.
- (h) The above throughput limits and the throughput limits of Condition D.1 shall limit the total potential to emit of volatile organic compounds (VOC), any single HAP, and total HAP emissions such that the source wide emissions of VOC, worst case single HAP, and total HAPs are limited to less than 100, 10, and 25 tons per twelve (12) month period, rolled on a monthly basis, respectively. Therefore, the requirements of 326 IAC 2-7 and 40 CFR Part 63.420, Subpart R, National Emission Standards for Gasoline Terminals and Pipeline Breakout Stations, do not apply.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Testing Requirements [326 IAC 2-8-5]

D.2.3 Carbon Adsorption Gasoline Recovery Unit - Testing

The Permittee shall test for VOC emissions from the exhaust stack in conformance with source operation condition number C.8 This test shall be performed within 180 days after issuance of this permit and shall be repeated at a frequency of not less than once every five years thereafter. These tests shall be performed according to 40 CFR 60.503 of Subpart XX and include EPA Standard Reference Methods 2A, 21, and 25B, or other method deemed appropriate by USEPA or method proposed in the stack test protocol submitted to and approved by IDEM.

Compliance Determination Requirements

D.2.4 Carbon Adsorption Gasoline Recovery Unit - Operation

- (a) As required by operation condition C.6(b), the carbon adsorption vapor recovery unit shall be operated at all times when gasoline is being loaded on the truck rack.
- (b) The carbon adsorption vapor recovery unit **is not** required to be operated at all times when **only** distillates are being loaded on the truck rack.

Compliance Monitoring Requirements [326 IAC 2-8-5]

D.2.5 Daily Visible Checks for Liquid Leaks

- (a) Daily checks for liquid leaks during loading or unloading operations of the truck loading rack, the vapor collection system and the carbon adsorption vapor recovery unit shall be performed during normal daylight operations when the facility is in operation. A trained employee will record any visible liquid leaks and the date of such leaks.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, checks shall be taken during that part of the operation that would normally be expected to cause the greatest potential for liquid leaks.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of liquid leaks for that specific process.
- (e) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when a liquid leak is observed.
- (f) All checks for visible liquid leaks made to comply with this condition shall be conducted in accordance with 326 IAC 8-4-9.

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

D.2.6 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be compiled monthly and shall be complete and sufficient to establish compliance with the usage limits and/or the VOC emission limits established in Condition D.2.1.
- (1) The amount of gasoline loaded for each month. Records shall include those documents as necessary to verify the type and amount of throughput. Examples may include, but are not limited to, shipping documents, bills of lading, purchase orders, pipeline schedules, throughput summaries, Material Safety Data Sheets, and/or other records that document volumes of the specific regulated material transferred;
 - (2) The amount of distillates loaded for each month;
 - (3) A log of the dates for loading each product;
 - (4) The types of volatile petroleum liquids loaded;
 - (5) The maximum true vapor pressure of the petroleum liquids as loaded; and
 - (6) the results of inspections performed and any repairs made on the truck loading rack, vapor collection system and carbon adsorption vapor recovery unit.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY CONDITIONS

- (6) one (1) carbon adsorption gasoline vapor recovery unit (VRU) identified as EU VRU, exhausting through one (1) stack identified as S/V 07 and including fugitive emissions based on capture efficiency identified as F07 (constructed in 1997).
- (7) modification in the operation of the loading rack, (i.e., a change in the method of operation from one (1) loading arm in distillates service and three (3) loading arms in gasoline service to all four (4) arms in gasoline service)
- (8) installation of an internal floating roof on storage tank (M21) identified as EU 04, prior to the storage of gasoline in the tank. This proposed installation will allow the tank to store petroleum liquids (gasoline and/or distillates).

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.2]

General Construction Conditions

D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

- D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.3.3 Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.
- D.3.4 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

D.3.5 This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management
Permit Administration & Development Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM .

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

Operation Conditions

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

D.3.6 Volatile Organic Compounds (VOC) [326 IAC 2-8-4(1)]

Upon the construction or modifications covered in these conditions, the following limitations apply:

- (a) The construction and operation of the VRU does not change the operation of the loading rack and therefore, all of the conditions stated in Condition D.2 shall apply.
- (b) The modification of the operation of the loading rack distillate loading arm to gasoline service makes the loading rack subject to NSPS Subpart XX. These requirements are stated in Condition D.2 and are necessary for compliance with 326 IAC 2-8 (FESOP). Therefore, all of the conditions stated in Condition D.2 shall apply.
- (c) Upon installation of the internal floating roof on Tank M10, the storage of gasoline will be allowed. All of the conditions stated in Condition D.1 shall apply.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Shell Oil Products Company - Muncie Terminal
Source Address: 2000 East State Road 28, Muncie, Indiana 47302
Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
FESOP No.: F035-7279-00018

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

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Emergency/Deviation Occurrence Reporting Form
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

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

Source Name: Shell Oil Products Company - Muncie Terminal
Source Address: 2000 East State Road 28, Muncie, Indiana 47302
Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
FESOP No.: F035-7279-00018

This form consists of 2 pages

Page 1 of 2

| |
|---|
| Check either No. 1 or No.2 |
| 9 1. This is an emergency as defined in 326 IAC 2-7-1(12) CThe Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16 |
| 9 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) CThe Permittee must submit notice in writing within ten (10) calendar days |

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

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

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

Page 2 of 2

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Shell Oil Products Company - Muncie Terminal
Source Address: 2000 East State Road 28, Muncie, Indiana 47302
Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
FESOP No.: F035-7279-00018
Facility: Four Petroleum Products (Gasoline) Storage Tanks
Parameter: Total Throughput
Limit: 157,345,440 gallons per 12-month period rolled on a monthly basis; 13,112,120 gallons per month during first 12-months of FESOP

Generator S/V ID: _____ **Month:** _____ **Year:** _____

| Past 12 Months | Tank M10 (gallons) | Tank M11 (gallons) | Tank M21 (gallons) | Tank M71 (gallons) | Total (gallons) |
|-----------------------|--------------------|--------------------|--------------------|--------------------|-----------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 12 Month Total | | | | | |

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: Shell Oil Products Company - Muncie Terminal
Source Address: 2000 East State Road 28, Muncie, Indiana 47302
Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
FESOP No.: F035-7279-00018
Facility: Four Petroleum Products (Distillates) Storage Tanks
Parameter: Total Throughput
Limit: 157,345,440 gallons per 12-month period rolled on a monthly basis; 13,112,120 gallons per month during first 12-months of FESOP

Generator S/V ID: _____ Month: _____ Year: _____

| Past 12 Months | Tank M10 (gallons) | Tank M11 (gallons) | Tank M21 (gallons) | Tank M71 (gallons) | Total (gallons) |
|-----------------------|--------------------|--------------------|--------------------|--------------------|-----------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 12 Month Total | | | | | |

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 QUARTERLY COMPLIANCE REPORT**

Source Name: Shell Oil Products Company - Muncie Terminal
 Source Address: 2000 East State Road 28, Muncie, Indiana 47302
 Mailing Address: P.O. Box 7, Zionsville, Indiana 46007
 FESOP No.: F035-7279-00018

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify zero in the column marked "No Deviations".

LIST EACH COMPLIANCE REQUIREMENT EXISTING FOR THIS SOURCE:

| Requirement (eg. Permit Condition D.1.3) | Number of Deviations | Date of each Deviation | No Deviations |
|---|-------------------------|---------------------------|------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

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

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

Source Background And Description

Source Name: Shell Oil Products Company - Muncie Terminal
Source Location: 2000 East State Road 28, Muncie, Indiana 47302
County: Delaware
SIC Code: 5171
Operation Permit No.: F035-7279-00018
Permit Reviewer: Richard A. Moore Jr./EVP

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Shell Oil Products Company - Muncie Terminal relating to the operation of a Bulk Petroleum Storage and Transfer Terminal.

Permitted Emission Units and Pollution Control Equipment

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

- (1) one (1) internal floating roof gasoline (or distillate) storage tank (M10), with a nominal capacity of 533,400 gallons, identified as Emission Unit (EU) 02, exhausting at one emission point identified as S/V 02 (tank constructed in 1946, internal floating roof installed in 1987);
- (2) one (1) internal floating roof gasoline (or distillate) storage tank (M11), with a nominal capacity of 894,600 gallons, identified as EU 03, exhausting at one emission point identified as S/V 03 (constructed in 1946);
- (3) one (1) fixed coned roof distillate storage tank (M21), with a nominal capacity of 520,800 gallons, identified as EU 04, exhausting at one emission point identified as S/V 04 (constructed in 1946);
- (4) one (1) internal floating roof gasoline (or distillate) storage tank (M71), with a nominal capacity of 550,200 gallons, identified as EU 05, exhausting at one emission point identified as S/V 05 (tank constructed in 1946, internal floating roof installed in 1992);
- (5) one (1) tank truck loading rack with four (4) loading arms, capable of bottom loading petroleum products (gasoline and distillates), with one (1) loading arm in distillates service and three (3) loading arms in gasoline service, identified as EU 07 exhausting through one (1) stack identified as S/V 07 (constructed in 1938) with emissions controlled by a Vapor Recovery Unit (VRU) listed in item (6) below.

Unpermitted Emission Units and Pollution Control Equipment

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

Emission Units and Pollution Control Equipment Under Enhanced New Source Review (ENSR)

The application includes information relating to the construction and operation of the following equipment:

- (6) one (1) carbon adsorption gasoline vapor recovery unit (VRU) identified as EU VRU, controlling emissions from the tank truck loading rack listed in item (5) above, exhausting through one (1) stack identified as S/V 07 and including fugitive emissions based on capture efficiency identified as F07 (constructed in 1997).
- (7) modification in the operation of the loading rack, (i.e., a change in the method of operation from one (1) loading arm in distillates service and three (3) loading arms in gasoline service to all four (4) arms in gasoline service)
- (8) installation of an internal floating roof on storage tank (M21) identified as EU 04, prior to the storage of gasoline in the tank. This proposed installation will allow the tank to store petroleum liquids (gasoline and/or distillates).

Insignificant Activities

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

- (9) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight. (Identified by applicant as a Oil Fired Furnace.)
- (10) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. (Identified by applicant as a Slop Oil Hold Tank.)
- (11) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (12) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume. (Identified by applicant as (a) an Oil/Water Separator and (b) Contact Water Cistern.)
- (13) Paved and unpaved roads and parking lots with public access.
- (14) Activities or categories of activities with individual HAP emissions not previously identified. Including any unit emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:
 - (a) Tank M01 (IDEM ID No. 01) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (Identified as EU 08.)

- (c) Tank M31 (IDEM ID No. 11) HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene. (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene, Xylene. (Identified as EU 06.)
- (15) Activities or categories of activities with a combination of HAP emissions not previously identified. Including any unit emitting greater than 1 pound per day but less than 12.5 pounds per day or 2.5 ton per year of any combination of HAPs:
- (a) Tank M01 (IDEM ID No. 01) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08) HAPs emitted may include the following: Cumene, Ethylbenzene, Xylenes, Formaldehyde. (Identified as EU 08.)
 - (c) Tank M31 (IDEM ID No. 11) HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene. (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. HAPs emitted may include the following: 2,2,4-Trimethylpentane, 1,3-Butadiene, Benzene, Biphenyl, Cresols, Cumene, Ethylbenzene, Hexane, Methyl t-butyl ether, Naphthalene, Phenol, Styrene, Toluene, Xylene. (Identified as EU 06.)
- (16) Other activities or categories not previously identified. Including:
- (a) Tank M01 (IDEM ID No. 01), (with a nominal capacity of 13,500 gallons, identified as EU 01.)
 - (b) Tank M02 (IDEM ID No. 08), (Identified as EU 08.)
 - (c) Tank M31 (IDEM ID No. 11), (with a nominal capacity of 21,000 gallons, identified as EU 11.)
 - (d) Fugitive emissions from equipment leaks for equipment containing gasoline. (Identified as EU 06.)

Existing Emission Units That Are Out of Service

The following emission units are listed as Out of Service in previous permits or this application:

- (17) one (1) floating roof storage tank (M20), with a nominal capacity of 210,000 gallons, identified as EU 09;
- (18) one (1) fixed coned roof distillate storage tank (M30), with a nominal capacity of 21,000 gallons, identified as EU 10;

- (19) one (1) floating roof storage tank (M40), with a nominal capacity of 84,000 gallons, identified as EU 12;
- (20) one (1) fixed coned roof storage tank (M70), with a nominal capacity of 84,000 gallons, identified as EU 13;
- (21) one (1) fixed coned roof storage tank (M83), with a nominal capacity of 4,620,000 gallons, identified as EU 14.

Existing Approvals

This source has been operating under the following approvals:

- (1) 18-09-86-0230, an operating permit issued on September 24, 1982.
- (2) An non-numbered registration issued on January 22, 1987.
- (3) CP-035-2730, a registration issued on October 19, 1992.

Enforcement Issue

There are no Enforcement actions pending.

Recommendation

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

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

An administratively complete FESOP application for the purposes of this review was received on November 25, 1996. Additional information was received on January 13, 1998 and March 10, 1998.

Emissions Calculations

See Appendix A: Emissions Calculations for detailed calculations (10 pages).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

| Pollutant | Potential Emissions (tons/year) |
|-----------------|---------------------------------|
| PM | 0.0 |
| PM-10 | 0.0 |
| SO ₂ | 0.0 |
| VOC | 668.89 |
| CO | 0.0 |
| NO _x | 0.0 |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

See attached spreadsheets for detailed calculations (Pages 1, 2 and 5 in Appendix A).

| HAP | Potential Emissions (tons/year) |
|------------------------|---------------------------------|
| Benzene | 6.83 |
| Toluene | 9.07 |
| Ethylbenzene | 0.74 |
| Xylenes | 3.59 |
| Cumene | 0.02 |
| MTBE | 79.45 |
| n-Hexane | 11.24 |
| 2,2,4-Trimethylpentane | 5.34 |
| 1,3-Butadiene | 0.05 |
| Styrene | 0.01 |
| TOTAL | 116.34 |

See attached spreadsheets for detailed calculations (Page 8 in Appendix A).

- (a) The potential emissions (as defined in the Indiana Rule) of volatile organic compounds (VOC) are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential emissions (as defined in Indiana Rule) of any single HAP is equal to or greater than ten (10) tons per year and the potential emissions (as defined in Indiana Rule) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter emissions are not counted toward determination of PSD and Emission Offset applicability.

Total Potential and Allowable Emissions (Proposed Modifications)

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

| Pollutant | Allowable Emissions (tons/year) | Potential Emissions (tons/year) |
|--------------------------------------|---------------------------------|---------------------------------|
| Particulate Matter (PM) | ---- | 0.00 |
| Particulate Matter (PM10) | ---- | 0.00 |
| Sulfur Dioxide (SO ₂) | ---- | 0.00 |
| Volatile Organic Compounds (VOC) | ---- | 163.63 |
| Carbon Monoxide (CO) | ---- | 0.00 |
| Nitrogen Oxides (NO _x) | ---- | 0.00 |
| Single Hazardous Air Pollutant (HAP) | ---- | 19.51 |
| Combination of HAPs | ---- | 27.99 |

- (a) The potential emissions based on the proposed modifications are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of VOCs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (c) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and/or the allowable emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

| Pollutant | PM (ton/yr) | PM10 (ton/yr) | SO ₂ (ton/yr) | VOC (ton/yr) | CO (ton/yr) | NO _x (ton/yr) |
|-------------------------------|-------------|---------------|--------------------------|--------------|-------------|--------------------------|
| Proposed Modification | 0.00 | 0.00 | 0.00 | 6.89 | 0.00 | 0.00 |
| PSD or Offset Threshold Level | 250 | 250 | 250 | 250 | 250 | 250 |

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Limited Potential To Emit

- (a) The source has accepted a federally enforceable limit on potential to emit VOCs of 99 tons per year, consisting of:
 - (i) 40.71 tons per year for the significant activities; and
 - (ii) 0.41 tons per year for the insignificant activities.

- b) The source has accepted a limit on potential to emit of 9.4 tons per year for any single HAP and 24 tons per year for any combination of HAPs.
- (c) The table below summarizes the total limited potential to emit of the significant and insignificant emission units.

| Process/ facility | Limited Potential to Emit (tons/year) | | | | | | |
|--|--|-------------|-----------------|--------------|-------------|-----------------|--------------|
| | PM | PM-10 | SO ₂ | VOC* | CO | NO _x | HAPs* |
| Truck Loading Rack gasoline loading - VRU | 0.00 | 0.00 | 0.00 | 22.98 | 0.00 | 0.00 | 3.93 |
| Truck Loading Rack distillate loading | 0.00 | 0.00 | 0.00 | 1.19 | 0.00 | 0.00 | 0.24 |
| Transport Truck Fugitives | 0.00 | 0.00 | 0.00 | 5.78 | 0.00 | 0.00 | 0.99 |
| Petroleum Storage Tanks | 0.00 | 0.00 | 0.00 | 10.77 | 0.00 | 0.00 | 3.57 |
| Equipment Fugitives (also Insignificant) | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 | 0.06 |
| Insignificant Activities | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 |
| Total Emissions | 0.00 | 0.00 | 0.00 | 99.00 | 0.00 | 0.00 | 24.00 |

*Limited VOC emissions (and therefore, Limited HAPs emissions) are based on limited throughputs of gasoline and distillates of 157,345,440 gallons, each. By limited throughputs to previously permitted levels, VOC emissions (and therefore, HAPs) are less than Part 70 significant levels.

County Attainment Status

The source is located in Delaware County.

| Pollutant | Status |
|-----------------|------------|
| TSP | attainment |
| PM-10 | attainment |
| SO ₂ | attainment |
| NO _x | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

326 IAC 12, (40 CFR Part 60.110, Subpart K; 40 CFR Part 60.110a, Subpart Ka; and 40 CFR Part 60.110b, Subpart Kb-Standards of Performance for Storage Vessels)

- (a) The four (4) permitted storage tanks (identified as EU 03, EU 01, EU 08, and EU 11) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, Subpart K, 60.110a, Subpart Ka, and 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" because all the listed tanks were constructed before June 11, 1973. Therefore the provisions of this Subpart do not apply.
- (b) The two (2) permitted storage tanks (identified as EU 04 and EU 05) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" even though each tank was modified after July 23, 1984 (i.e., installation of an internal floating roof), the installation of control devices are specifically exempt from the applicability definition of modification. Therefore the provisions of this Subpart do not apply.
- (c) The one (1) permitted storage tank (identified as EU 02) is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" because the tank was modified after July 23, 1984 (i.e., change in service from diesel fuel storage to gasoline storage which results in an increase in emissions). Therefore the provisions of this Subpart do apply. The facility will comply with the requirements of this rule by maintaining the internal floating roof, conducting the required inspections and submitting the required reports.

326 IAC 12, (40 CFR Part 60.500, Subpart XX, Standards of Performance for Bulk Gasoline Terminals)

- (d) The existing loading rack identified as EU 07 and the Vapor Recovery System identified as EU VRU are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.500, Subpart XX) "Standards of Performance for Bulk Gasoline Terminals". Even though the loading rack was constructed or modified before December 17, 1980, the proposed modification in this application, (i.e., a change in the method of operation from one (1) loading arm in Distillates service and three (3) loading arms in Gasoline service to all four (4) arms in Gasoline service) will result in an increase in emissions. This proposed change in service will make the loading rack an affected facility. Therefore, pursuant to Subpart XX:
 - (1) The source is required to have a vapor collection system designed to collect the total vapors displaced from tank trucks during gasoline loading.
 - (2) The emissions from the system shall not exceed 35 milligrams of total organic compounds per liter of gasoline loaded.
 - (3) The source must operate the vapor balance system in accordance with the specified workpractice standards.

- (4) The source must maintain records associated with the operation of the vapor collection system and gasoline loading.

The source will comply with the requirements of Subpart XX by utilizing a vapor recovery system to control total organic compound emissions to 35 milligrams per liter of gasoline loaded. Records will also be maintained as required.

326 IAC 20, (40 CFR Part 63.420, Subpart R, National Emission Standards for Gasoline Terminals and Pipeline Breakout Stations)

- (e) This source is not subject to the requirements for Hazardous Air Pollutants, 326 IAC 20, (40 CFR Part 63.420, Subpart R), because the source has documented and recorded (by virtue of the attached FESOP) that it is not a major source for HAPs as defined at Section 63.2 of this part (i.e., potential emissions of a single HAP are below 10 tons per year and the total of all HAPs are below 25 tons per year).

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an annual emission statement. Pursuant to this rule, any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. This source has accepted federally enforceable operation conditions which limit emissions of volatile organic compounds (VOC) to below 100 tons per year. Therefore, the requirements of 326 IAC 2-6 do not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). By accepting the following limitations the source wide volatile organic compound emissions are limited to less than 99.0 tons per year, therefore the source satisfies the requirements of 326 IAC 2-8 (FESOP) and is not subject to the requirements of 326 IAC 2-7. Therefore, pursuant to this rule, the following conditions apply:

- (a) The four (4) storage tanks identified as EU 02, EU 03, EU 04 and EU 05 shall limit the total throughput of petroleum products (gasoline and/or distillates) through all four of the listed storage tanks to 157,060,000 gallons per twelve (12) month period, rolled on a monthly basis.
- (b) The loading rack identified as EU 07 shall limit the total throughput of petroleum products (gasoline and/or distillates) through all four (4) loading arms to 157,060,000 gallons per twelve (12) month period, rolled on a monthly basis.
- (c) The VRU identified as EU VRU shall be operated at all times that gasoline loading is being conducted at the loading rack (EU 07).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2 (1), (2), or (3).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This source is not subject to 326 IAC 7-1.1 because none of the facilities have a PTE of more than 25 tons per year or 10 lbs per hour of sulfur dioxide. Therefore, pursuant to 326 IAC 7-1.1-1, the requirements of 326 IAC 7-1.1 and 7.2 do not apply.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more and are not subject to other provisions of Article 8. This source has a loading rack (EU 07) that was modified after January 1, 1980, with potential uncontrolled VOC emissions in excess of 25 tons per year. However, the loading rack is not a new facility and therefore, this rule does not apply.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

The four (4) existing permitted petroleum storage tanks (EU 02, EU 03, EU 04, and EU 05) are not subject to the requirements of 326 IAC 8-4-3, because pursuant to 326 IAC 8-4-1, this rule only applies to new sources as of January 1, 1980. The four (4) petroleum storage tanks were installed prior to 1980, therefore, they are not subject to the requirements of 326 IAC 8-4-3.

326 IAC 8-4-4 (Bulk Gasoline Terminals)

Pursuant to 326 IAC 8-4-1, the loading of gasoline into any transports at this source is not subject to the requirements of 326 IAC 8-4-4 (Bulk Gasoline Terminals) because this source is not located in one of the listed counties and it is not a new source. This rule does not apply even though the source is a bulk gasoline terminal (having a FESOP limited daily gasoline throughput of approximately 430,137 gallons per day which is greater than the 20,000 gallons per day threshold to meet the definition of bulk gasoline terminal). However, the source can meet the requirements of this rule because the loading rack (EU 07) is equipped with an approved control system (Vapor Recovery System (EU VRU)), demonstrated to have a control efficiency of less than 35 mg/l which is less than the 80 mg/l standard of this rule.

326 IAC 8-4-5 (Bulk Gasoline Plants)

The source is not subject to the requirements of 326 IAC 8-4-5 (Bulk Gasoline Plants) since the source does not meet the definition of a bulk gasoline plant, which requires a daily gasoline throughput of less than 20,000 gallons per day.

326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems; Records)

Pursuant to 326 IAC 8-4-9, sources subject to the requirements of 326 IAC 8-4-4, 8-4-5 and 8-4-6 are also subject to the requirements of 326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems, Records). Therefore, since the required sections do not apply, this source is not subject to the requirements of 326 IAC 8-4-9.

326 IAC 8-6 (Organic Solvent Emission Limitations)

Pursuant to 326 IAC 8-6-1, the requirements of this rule apply to sources commencing operation after October 7, 1974 and prior to January 1, 1980, located anywhere in the state, with potential VOC emissions of 100 tons per year or more, and not regulated by any other provision of Article 8. This source commenced operation before October 7, 1974 and has limited VOC emissions to less than 100 tons per year, therefore, this rule does not apply.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. Storage tanks EU 02, EU 03, EU 04 and EU 05 have applicable compliance monitoring conditions as specified below:
 - a) The sum of the throughputs of petroleum products (gasoline and or distillates) through all four storage tanks is limited to 157,060,000 gallons per twelve (12) month period, rolled on a monthly basis. This limit is necessary in order to ensure compliance with 326 IAC 2-8 (FESOP).
 - b) Quarterly reports shall be submitted to the OAM. These reports shall include the gallons of throughput for each tank per month and the sum of all four tank throughputs per month. The reports shall also include deviations from compliance monitoring criteria, certification that corrective actions were taken, or certification that no deviations occurred during the reporting period.

- c) Records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of inspections performed on the storage vessels shall be maintained for a minimum of 36 months and made available upon request of the OAM.

These monitoring conditions are necessary because the limit on the total tank throughput for these storage tanks is needed to ensure compliance with 326 IAC 2-8 (FESOP).

2. The operation of the tank truck loading rack has applicable compliance monitoring conditions as specified below:

- a) The loading of petroleum products (gasoline and distillates) through the truck loading rack is limited to 157,060,000 gallons of gasoline and/or distillates per twelve (12) month period, rolled on a monthly basis. This limit is necessary in order to ensure compliance with 326 IAC 2-8 (FESOP).
- b) Test for volatile organic compound emissions at the VRU exhaust stack (S/V 07) during gasoline loading. Testing shall be performed in accordance to 326 IAC 3-6 using methods acceptable to the Commissioner. The stack test shall be performed within 18 to 24 months after issuance of this permit.
- c) Stack test reports shall be submitted to the OAM in accordance with 326 IAC 3-2.1.
- d) Quarterly reports shall be submitted to the OAM. These reports shall include the gallons of throughput for each petroleum product (gasoline and distillates) per month. The reports shall also include deviations from compliance monitoring criteria, certification that corrective actions were taken, or certification that no deviations occurred during the reporting period.
- e) Records of the types of volatile petroleum liquid loaded, the maximum true vapor pressure of the liquid as loaded, and the results of inspections performed on the vapor collection and control system shall be maintained for a minimum of 36 months and made available upon request of the OAM.

These monitoring conditions are necessary because the limits on the tank truck loading rack are needed to ensure compliance with 326 IAC 2-8 (FESOP) and 326 IAC 12, (40 CFR Part 60.500, Subpart XX, Standards of Performance for Bulk Gasoline Terminals).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source has accepted federally enforceable air toxic emission limits of 9.4 tons per year for any single HAP and/or 24 tons per year for any combination of HAPs.

Conclusion

The operation of this Bulk Petroleum Storage and Transfer Terminal will be subject to the conditions of the attached proposed **FESOP No. F035-7279-00018**.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

Source Background And Description

Source Name: Shell Oil Products Company - Muncie Terminal
Source Location: 2000 East State Road 28, Muncie, Indiana 47302
County: Delaware
SIC Code: 5171
Operation Permit No.: F035-7279-00018
Permit Reviewer: Richard A. Moore Jr./EVP

On May 4, 1998, the Office of Air Management (OAM) had a notice published in the Muncie Star Press, Muncie, Indiana, stating that Shell Oil Products Company - Muncie Terminal had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a Bulk Petroleum Storage and Transfer Terminal. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAM has decided to make the following changes to the TSD:

1. On page 9 of 12, under 326 IAC 2-8-4 (FESOP) paragraph (a) and (b) the throughput through all four storage tanks and the loading rack is limited to **157,345,440** gallons per twelve (12) month period, rolled on a monthly basis.
2. On page 11 of 12, under compliance monitoring requirements 1 a) the throughput through all four storage tanks is limited to **157,345,440** gallons per twelve (12) month period, rolled on a monthly basis.
3. On page 12 of 12, under compliance monitoring requirements 2 a) the throughput through the loading rack is limited to **157,345,440** gallons per twelve (12) month period, rolled on a monthly basis.

All of these changes are necessary to reflect the correct throughput which was used in the emission calculations and is stated in the proposed FESOP.

Upon further review, the OAM has decided to make the following changes to the FESOP:

4. On page 30 of 40, Condition D.2.1, the last sentence of subparagraph (g) has been deleted and a new subparagraph (h) has been added as follows:

- (h) The above throughput limits and the throughput limits of Condition D.1 shall limit the total potential to emit of volatile organic compounds (VOC), any single HAP, and total HAP emissions such that the source wide emissions of VOC, worst case single HAP, and total HAPs are limited to less than 100, 10, and 25 tons per twelve (12) month period, rolled on a monthly basis, respectively. Therefore, the requirements of 326 IAC 2-7 and 40 CFR Part 63.420, Subpart R, National Emission Standards for Gasoline Terminals and Pipeline Breakout Stations, do not apply.

This change is necessary to clarify the minor source status of the facility under 40 CFR Part 63.420 in the proposed FESOP.

- (5) On page 31 of 40, Condition D.2.3, has been change as follows:

“This test shall be performed within **180 days** after issuance of this permit ...”

This change is necessary to be consistent with NSPS requirements.

- (6) On page 8 of 40, Condition A.5 has been removed to comply with EPA comments.

The Table of contents has been updated to reflect the above changes.

**Appendix A: Emission Calculations
Potential HAP Emissions Summary**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Source Identification | Service | VOC Emissions Tons/yr | Vapor Weight Percent | | | | | | | | | | | | | |
|-----------------------|--------------|-----------------------|----------------------|---------|---------------|---------|--------|------------|----------|--------|----------|-------------------------|---------------|---------|--------|---------|
| | | | Benzene | Toluene | Ethyl-Benzene | Xylenes | Cumene | Napthalene | Biphenyl | MTBE | n-Hexane | 2,2,4-Tri-methylpentane | 1,3-Butadiene | Cresols | Phenol | Styrene |
| | Gasoline | | 0.31% | 0.59% | 0.05% | 0.20% | 0.00% | 0.00% | 0.00% | 1.70% | 0.89% | 0.64% | 0.01% | 0.00% | 0.00% | 0.00% |
| | Additive | | 0.31% | 0.59% | 0.05% | 0.20% | 0.00% | 0.00% | 0.00% | 1.70% | 0.89% | 0.64% | 0.01% | 0.00% | 0.00% | 0.00% |
| | API Gasoline | | 0.90% | 1.30% | 0.10% | 0.50% | -- | -- | -- | 11.90% | 1.60% | 0.80% | -- | -- | -- | -- |
| | Max Gasoline | | 0.90% | 1.30% | 0.10% | 0.50% | 0.00% | 0.00% | 0.00% | 11.90% | 1.60% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% |
| | Distillate | | 7.28% | 4.25% | 0.69% | 2.42% | -- | -- | -- | 0.00% | 5.85% | -- | -- | -- | -- | -- |
| | Worst Case | | 7.28% | 4.25% | 0.69% | 2.42% | 0.00% | 0.00% | 0.00% | 11.90% | 5.85% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% |

| | | HAP Emissions (tons/yr) | | | | | | | | | | | | | | | Total |
|------------------------|------------------------------|-------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|-------------|------------|----------|----------|---------|----------|
| M10 | Petroleum (Worst Case) | 6671.45 | 485.68 | 283.54 | 46.03 | 161.45 | 0.22 | 0.01 | 0.00 | 793.90 | 390.28 | 53.37 | 0.49 | 0.00 | 0.00 | 0.11 | 2215.09 |
| M11 | Petroleum (Worst Case) | 4987.17 | 363.07 | 211.95 | 34.41 | 120.69 | 0.16 | 0.01 | 0.00 | 593.47 | 291.75 | 39.90 | 0.37 | 0.00 | 0.00 | 0.08 | 1655.87 |
| M21 | Petroleum (Worst Case) | 7641.91 | 556.33 | 324.78 | 52.73 | 184.93 | 0.25 | 0.01 | 0.00 | 909.39 | 447.05 | 61.14 | 0.57 | 0.00 | 0.00 | 0.12 | 2537.31 |
| M71 | Petroleum (Worst Case) | 3825.63 | 278.51 | 162.59 | 26.40 | 92.58 | 0.13 | 0.01 | 0.00 | 455.25 | 223.80 | 30.61 | 0.28 | 0.00 | 0.00 | 0.06 | 1270.21 |
| Tanks | Subtotal, lbs/yr | 23126.16 | 1683.584 | 982.8618 | 159.5705 | 559.6531 | 0.763163 | 0.04394 | 0.000102 | 2752.013 | 1352.88 | 185.00928 | 1.71133584 | 0.006707 | 0.001249 | 0.37002 | 7678.48 |
| | Subtotal, TPY | 11.56 | 0.84 | 0.49 | 0.08 | 0.28 | 0 | 0 | 0 | 1.38 | 0.68 | 0.09 | 0 | 0 | 0 | 0 | 3.84 |
| Loading | Distillate | 2380 | 173.26 | 101.15 | 16.42 | 57.60 | 0.00 | 0.00 | 0.00 | 0.00 | 139.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 487.66 |
| | Subtotal, TPY | 1.19 | 0.09 | 0.05 | 0.01 | 0.03 | 0 | 0 | 0 | 0 | 0.07 | 0 | 0 | 0 | 0 | 0 | 0.24 |
| Loading Before Control | (Max GASOLINE) Subtotal, TPY | 1299900 | 11699.10 | 16898.70 | 1299.90 | 6499.50 | 42.90 | 2.47 | 0.01 | 154688.10 | 20798.40 | 10399.20 | 96.19 | 0.38 | 0.07 | 20.80 | 222445.7 |
| | Subtotal, TPY | 649.95 | 5.85 | 8.45 | 0.65 | 3.25 | 0.02 | 0 | 0 | 77.34 | 10.4 | 5.2 | 0.05 | 0 | 0 | 0.01 | 111.22 |
| Loading Uncaptured | Fugitives | 11560 | 104.04 | 150.28 | 11.56 | 57.80 | 0.38 | 0.02 | 0.00 | 1375.64 | 184.96 | 92.48 | 0.86 | 0.00 | 0.00 | 0.18 | 1978.21 |
| | Subtotal, TPY | 5.78 | 0.05 | 0.08 | 0.01 | 0.03 | 0 | 0 | 0 | 0.69 | 0.09 | 0.05 | 0 | 0 | 0 | 0 | 0.99 |
| Air Strippers | Recovered Product | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Equipment | Fugitives | 700 | 6.30 | 9.10 | 0.70 | 3.50 | 0.02 | 0.00 | 0.00 | 83.30 | 11.20 | 5.60 | 0.05 | 0.00 | 0.00 | 0.01 | 119.79 |
| | Subtotal, TPY | 0.35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.04 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0.06 |
| Insignificant | Subtotal | 120 | 0.004368 | 0.00255 | 0.000414 | 0.001452 | 2.0E-06 | 1.1E-07 | 2.6E-10 | 0.00714 | 0.00351 | 0.00048 | 4.440E-06 | 1.7E-08 | 3.2E-09 | 0 | 0.01 |
| | Subtotal, TPY | 0.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | lbs/yr | 1337786 | 13666.29 | 18142.09 | 1488.153 | 7178.051 | 44.06445 | 2.537044 | 0.005875 | 158899.1 | 22486.67 | 10682.28976 | 98.8111803 | 0.387233 | 0.072105 | 21.3646 | 232709.9 |
| Grand Total | tons/yr | 668.89 | 6.83 | 9.07 | 0.74 | 3.59 | 0.02 | 0 | 0.00 | 79.45 | 11.24 | 5.34 | 0.05 | 0 | 0 | 0.01 | 116.35 |
| | % of VOC | | 1.02% | 1.36% | 0.11% | 0.54% | 0.00% | 0.00% | 0.00% | 11.88% | 1.68% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% | 17.39% |

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

**Appendix A: Emission Calculations
Limited HAP Emissions Summary**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Source Identification | Service | VOC Emissions Tons/yr | Vapor Weight Percent | | | | | | | | | | | | | |
|-----------------------|--------------|-----------------------|----------------------|---------|---------------|---------|--------|------------|----------|--------|----------|-------------------------|---------------|---------|--------|---------|
| | | | Benzene | Toluene | Ethyl-Benzene | Xylenes | Cumene | Napthalene | Biphenyl | MTBE | n-Hexane | 2,2,4-Tri-methylpentane | 1,3-Butadiene | Cresols | Phenol | Styrene |
| | Gasoline | | 0.31% | 0.59% | 0.05% | 0.20% | 0.00% | 0.00% | 0.00% | 1.70% | 0.89% | 0.64% | 0.01% | 0.00% | 0.00% | 0.00% |
| | Additive | | 0.31% | 0.59% | 0.05% | 0.20% | 0.00% | 0.00% | 0.00% | 1.70% | 0.89% | 0.64% | 0.01% | 0.00% | 0.00% | 0.00% |
| | API Gasoline | | 0.90% | 1.30% | 0.10% | 0.50% | -- | -- | -- | 11.90% | 1.60% | 0.80% | -- | -- | -- | -- |
| | Max Gasoline | | 0.90% | 1.30% | 0.10% | 0.50% | 0.00% | 0.00% | 0.00% | 11.90% | 1.60% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% |
| | Distillate | | 7.28% | 4.25% | 0.69% | 2.42% | -- | -- | -- | 0.00% | 5.85% | -- | -- | -- | -- | -- |
| | Worst Case | | 7.28% | 4.25% | 0.69% | 2.42% | 0.00% | 0.00% | 0.00% | 11.90% | 5.85% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% |

| | | HAP Emissions (tons/yr) | | | | | | | | | | | | | | | Total |
|-----------------------|------------------------------|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|------------|----------|----------|----------|----------|
| M10 | Petroleum (Worst Case) | 6117.33 | 445.34 | 259.99 | 42.21 | 148.04 | 0.20 | 0.01 | 0.00 | 727.96 | 357.86 | 48.94 | 0.45 | 0.00 | 0.00 | 0.10 | 2031.11 |
| M11 | Petroleum (Worst Case) | 4492.59 | 327.06 | 190.94 | 31.00 | 108.72 | 0.15 | 0.01 | 0.00 | 534.62 | 262.82 | 35.94 | 0.33 | 0.00 | 0.00 | 0.07 | 1491.65 |
| M21 | Petroleum (Worst Case) | 7097.88 | 516.73 | 301.66 | 48.98 | 171.77 | 0.23 | 0.01 | 0.00 | 844.65 | 415.23 | 56.78 | 0.53 | 0.00 | 0.00 | 0.11 | 2356.68 |
| M71 | Petroleum (Worst Case) | 3825.63 | 278.51 | 162.59 | 26.40 | 92.58 | 0.13 | 0.01 | 0.00 | 455.25 | 223.80 | 30.61 | 0.28 | 0.00 | 0.00 | 0.06 | 1270.21 |
| Tanks | Subtotal, lbs/yr | 21533.43 | 1567.634 | 915.1708 | 148.5807 | 521.109 | 0.710603 | 0.040914 | 0.000095 | 2562.478 | 1259.706 | 172.26744 | 1.59347382 | 0.006245 | 0.001163 | 0.344535 | 7149.65 |
| | Subtotal, TPY | 10.77 | 0.78 | 0.46 | 0.07 | 0.26 | 0 | 0 | 0 | 1.28 | 0.63 | 0.09 | 0 | 0 | 0 | 0 | 3.57 |
| Loading | Distillate | 2380 | 173.26 | 101.15 | 16.42 | 57.60 | 0.00 | 0.00 | 0.00 | 0.00 | 139.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 487.66 |
| | Subtotal, TPY | 1.19 | 0.09 | 0.05 | 0.01 | 0.03 | 0 | 0 | 0 | 0 | 0.07 | 0 | | | | 0 | 0.24 |
| Loading After Control | (Max GASOLINE) Subtotal, TPY | 45960 | 413.64 | 597.48 | 45.96 | 229.80 | 1.52 | 0.09 | 0.00 | 5469.24 | 735.36 | 367.68 | 3.40 | 0.01 | 0.00 | 0.74 | 7864.92 |
| | | 22.98 | 0.21 | 0.3 | 0.02 | 0.11 | 0 | 0 | 0 | 2.73 | 0.37 | 0.18 | 0 | 0 | 0 | 0 | 3.93 |
| Loading Uncaptured | Fugitives Subtotal, TPY | 11560 | 104.04 | 150.28 | 11.56 | 57.80 | 0.38 | 0.02 | 0.00 | 1375.64 | 184.96 | 92.48 | 0.86 | 0.00 | 0.00 | 0.18 | 1978.21 |
| | | 5.78 | 0.05 | 0.08 | 0.01 | 0.03 | 0 | 0 | 0 | 0.69 | 0.09 | 0.05 | 0 | 0 | 0 | 0 | 0.99 |
| Air Strippers | Recovered Product | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Equipment | Fugitives Subtotal, TPY | 700 | 6.30 | 9.10 | 0.70 | 3.50 | 0.02 | 0.00 | 0.00 | 83.30 | 11.20 | 5.60 | 0.05 | 0.00 | 0.00 | 0.01 | 119.79 |
| | | 0.35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.04 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0.06 |
| Insignificant | Subtotal | 120 | 0.004368 | 0.00255 | 0.000414 | 0.001452 | 2.0E-06 | 1.1E-07 | 2.6E-10 | 0.00714 | 0.00351 | 0.00048 | 4.440E-06 | 1.7E-08 | 3.2E-09 | 0 | 0.01 |
| | Subtotal, TPY | 0.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | lbs/yr | 82253.43 | 2264.882 | 1773.183 | 223.2231 | 869.8065 | 2.631865 | 0.151532 | 0.000351 | 9490.665 | 2330.459 | 638.02792 | 5.90175826 | 0.023129 | 0.004307 | 1.276055 | 17600.24 |
| Grand Total | tons/yr | 41.13 | 1.13 | 0.89 | 0.11 | 0.43 | 0 | 0 | 0.00 | 4.75 | 1.17 | 0.32 | 0 | 0 | 0 | 0 | 8.8 |
| | % of VOC | | 2.75% | 2.16% | 0.27% | 1.05% | 0.00% | 0.00% | 0.00% | 11.55% | 2.84% | 0.78% | 0.00% | 0.00% | 0.00% | 0.00% | 21.40% |

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

**Appendix A: Emission Calculations
Insignificant Sources Emissions**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Source Identification | Service | VOC Emissions Tons/yr | Vapor Weight Percent | | | | | | | | | | | | | | Total |
|-------------------------|-------------------|-----------------------|----------------------|---------|---------------|----------|---------|------------|----------|---------|----------|-------------------------|---------------|---------|---------|---------|-------|
| | | | Benzene | Toluene | Ethyl-Benzene | Xylenes | Cumene | Napthalene | Biphenyl | MTBE | n-Hexane | 2,2,4-Tri-methylpentane | 1,3-Butadiene | Cresols | Phenol | Styrene | |
| | Worst Case | | 7.28% | 4.25% | 0.69% | 2.42% | 0.00% | 0.00% | 0.00% | 11.90% | 5.85% | 0.80% | 0.01% | 0.00% | 0.00% | 0.00% | |
| | Additive | | | | | | | | | | | | | | | | |
| HAP Emissions (tons/yr) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | Total |
| M1 | Worst Case | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| | Additive | | | | | | | | | | | | | | | | |
| M2 | Worst Case | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| | Additive | | | | | | | | | | | | | | | | |
| M31 | Worst Case | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| | Contact Water | | | | | | | | | | | | | | | | |
| Oil/Water Sep | Recovered Product | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Maintenance | Recovered Product | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| Grand Total | | 120 | 0.004368 | 0.00255 | 0.000414 | 0.001452 | 2.0E-06 | 1.1E-07 | 2.6E-10 | 0.00714 | 0.00351 | 0.00048 | 4.440E-06 | 1.7E-08 | 3.2E-09 | 9.6E-07 | 0.01 |
| | % of VOC | 0.06 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

Note: Air Strippers, Oil Wate Separator and Maintenance emissions are estimated at the insignificant source limits of 15 lbs/day.

**Appendix A: Emission Calculations
Emissions from Truck Loading Operations**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

Uncontrolled Emissions

| Material Loaded | Throughput kgal | C Saturation Factor (S) | D MW lb/lb-mole | E Temperature F | F TVP psi | G AP-42 Emission Factor $12.46 \times C \times D \times F / (E + 460)$ | Uncontrolled Loading Losses (tons/yr) BxG/2000 |
|----------------------------------|--------------------|-------------------------------|-----------------------|-----------------------|-----------------|--|--|
| | | | | | | | |
| Jan | 13,112.12 | 1.0 | 59.30 | 52.12 | 5.5909 | 8.0665 | 52.88 |
| Feb | 13,112.12 | 1.0 | 59.30 | 52.12 | 5.8194 | 8.3961 | 55.05 |
| Mar | 13,112.12 | 1.0 | 59.30 | 52.12 | 6.4054 | 9.2416 | 60.59 |
| Apr | 13,112.12 | 1.0 | 61.30 | 52.12 | 6.3725 | 9.5042 | 62.31 |
| May | 13,112.12 | 1.0 | 63.67 | 52.12 | 4.4313 | 6.8646 | 45.00 |
| June | 13,112.12 | 1.0 | 63.67 | 52.12 | 4.8314 | 7.4844 | 49.07 |
| July | 13,112.12 | 1.0 | 63.67 | 52.12 | 4.9697 | 7.6986 | 50.47 |
| Aug | 13,112.12 | 1.0 | 63.67 | 52.12 | 4.8698 | 7.5438 | 49.46 |
| Sept | 13,112.12 | 1.0 | 65.67 | 52.12 | 5.2698 | 8.4199 | 55.20 |
| Oct | 13,112.12 | 1.0 | 61.30 | 52.12 | 6.4306 | 9.5909 | 62.88 |
| Nov | 13,112.12 | 1.0 | 60.66 | 52.12 | 5.9372 | 8.7625 | 57.45 |
| Dec | 13,112.12 | 1.0 | 59.30 | 52.12 | 5.8530 | 8.4446 | 55.36 |
| Petroleum Products (Gasoline) | 157,345.44 | | | 52.12 | | | 655.72 |
| Distillates | 157,345.44 | 1.0 | 130 | 52.12 | 0.0048 | 0.0152 | 1.20 |
| Total | | | | | | | 656.92 |

Note: Emission factor in pounds per thousand gallons loaded, based on AP-42, 5th Ed, 1995.

**Appendix A: Emission Calculations
Emissions from Truck Loading Operations**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

Fugitive Emissions

| Material Loaded | Throughput kgal | A | B | Uncontrolled Emission x (1 - capture efficiency) | Fugitive |
|----------------------------------|--------------------|--|-----------------------|---|---|
| | | Uncontrolled Loading Losses (tons/yr) | Capture Efficiency | | Loading Losses (tons/yr) A x (1-B) |
| Petroleum Products (Gasoline) | 157,345.44 | 655.72 | 99.12% | | 5.77 |
| Distillates | 157,345.44 | 1.20 | 99.12% | | 0.01 |
| Total | | | | | 5.78 |

Note: Based on Bay Area Air Quality Management District (BAAQMD) data, EPA Transport Truck Studies (EPA-450/3-79-018), the Capture Efficiency for Truck Loading Vapor Recovery Units (VRU) is estimated at 99.12%. Therefore, fugitive emissions from Truck Loading are estimated to be 0.88% (e.g., 100%-99.12%).

**Appendix A: Emission Calculations
Emissions from Truck Loading Operations**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

VRU Controlled Emissions

| Material Loaded | A Throughput kgal | B Uncontrolled Loading Losses (tons/yr) | C Control Efficiency | D Permit Limit 35 mg/l Loaded | E x 4.172 E-6 l-ton/gal-mg | F Uncontrolled Emission x (1 - control efficiency) | Fugitive Loading Losses (tons/yr) A x D x E or B x (1-C) |
|----------------------------------|-------------------------|---|----------------------------|--|-------------------------------------|--|--|
| Petroleum Products (Gasoline) | 157,345.44 | 649.95 | 95.71% | 35.0000 | | | 22.98 |
| Distillates | 157,345.44 | 1.20 | 0.88% | No limit required, efficiency based on fugitive emissions capture efficiency to avoid double accounting. | | | 1.19 |
| Total | | | | | | | 24.16 |

**Appendix A: Emission Calculations
Tank Emissions Maximum PTE @ Each Individually Limited**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Tank Number | Product Stored | Losses (Pounds per Year) | | | | | | Total | Tons/yr Total |
|-------------------------------|--------------------|--------------------------|--------------|----------------|----------------|-----------------|----------------|---------|---------------|
| | | Standing | Working | Withdraw | Rim Seal | Deck Fitting | Deck Seam | | |
| M10 | Petroleum Products | | | 554.12 | 949.91 | 3954.05 | 1213.37 | 6671.45 | 3.34 |
| M11 | Petroleum Products | | | 494.58 | 966.01 | 1736.62 | 1789.96 | 4987.17 | 2.49 |
| M21 | Distillate | 0 | 0 | | | | | 0 | 0 |
| M21 Proposed | Petroleum Products | | | 544.03 | 966.01 | 4341.91 | 1789.96 | 7641.91 | 3.82 |
| M71 | Petroleum Products | | | 631.14 | 772.81 | 1274.84 | 1146.84 | 3825.63 | 1.91 |
| Grand Total | | 0 | 0 | 2223.87 | 3654.74 | 11307.42 | 5940.13 | | 11.56 |
| Insignificant Category | | | | | | | | | |
| M1 | Gasoline Additive | 11.1 | 8.53 | | | | | 19.63 | 0.01 |
| M2 | Gasoline Additive | 8.05 | 2.21 | | | | | 10.26 | 0.01 |
| M31 | Contact Water | 61.26 | 11.71 | | | | | 72.97 | 0.04 |
| Insig Total | | 80.41 | 22.45 | 0 | 0 | 0 | 0 | | 0.06 |

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

**Appendix A: Emission Calculations
Tank Emissions Limited to Loading Throughputs**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Tank Number | Product Stored | Losses (Pounds per Year) | | | | | | Tons/yr | |
|-------------------------------|--------------------|--------------------------|--------------|---------------|----------------|-----------------|----------------|---------|--------------|
| | | Standing | Working | Withdraw | Rim Seal | Deck Fitting | Deck Fitting | Total | Total |
| M10 | Petroleum Products | 0 | | | 949.91 | 3954.05 | 1213.37 | 6117.33 | 3.06 |
| M11 | Petroleum Products | | | | 966.01 | 1736.62 | 1789.96 | 4492.59 | 2.25 |
| M21 | Distillate | 0 | 0 | | | | | 0 | 0 |
| M21 Proposed | Petroleum Products | | | | 966.01 | 4341.91 | 1789.96 | 7097.88 | 3.55 |
| M71 | Petroleum Products | | | 631.14 | 772.81 | 1274.84 | 1146.84 | 3825.63 | 1.91 |
| Grand Total | | 0 | 0 | 631.14 | 3654.74 | 11307.42 | 5940.13 | | 10.77 |
| Insignificant Category | | | | | | | | | |
| M1 | Gasoline Additive | 11.1 | 8.53 | | | | | 19.63 | 0.01 |
| M1 | Gasoline Additive | 8.05 | 2.21 | | | | | 10.26 | 0.01 |
| M1 | Contact Water | 61.26 | 11.71 | | | | | 72.97 | 0.04 |
| Insig Total | | 80.41 | 22.45 | 0 | 0 | 0 | 0 | | 0.06 |

Note: Tanks M10, M11, M21 and M71 Limited to 157,345,440 gallons/yr total throughput
Note: All storage tank emissions estimated using EPA's TANKS 3.0

**Appendix A: Emission Calculations
Fugitive Equipment Leak Emissions**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 04/02/98**

| Component Type & Service | Source Component Count | x | NOTE (1) Emission Factor (kg/Hr/Comp) | x 9.656 ton- hr/kg-yr | Estimated Total VOC Emissions (Tons/yr) |
|--------------------------|------------------------|---|---------------------------------------|-----------------------|---|
| Connectors - Vapor | 12 | | 4E-05 | | 0.005 |
| Connectors - Lt Liquid | 1462 | | 8E-06 | | 0.113 |
| Valves - Vapor | 2 | | 1.3E-05 | | 0 |
| Valves - Lt Liquid | 287 | | 4.3E-05 | | 0.119 |
| Loading Arms V - Vapor | 1 | | 1.3E-05 | | 0 |
| Loading Arms V - LL | 3 | | 4.3E-05 | | 0.001 |
| Open Ended Lines -V | 1 | | 1.2E-04 | | 0.001 |
| Open Ended Lines -LL | 12 | | 1.3E-04 | | 0.015 |
| Pump Seals Lt. Liquid | 13 | | 5.4E-04 | | 0.068 |
| Other - Lt. Liquid | 18 | | 1.3E-04 | | 0.023 |
| Total | | | | | 0.35 |

Note (1)

Emission factors from "Protocol for Equipment Leak Emission Estimates" pub. EPA 453/R-95-017, Nov. 95 Table 2-3.

**Appendix A: Emission Calculations
Source Wide Summary**

**Company Name: Shell Oil Products Company - Muncie Terminal
Address City IN Zip: 2000 East State Road, Muncie, Indiana 47302
FESOP: F035-7279-00018
Reviewer: Richard A. Moore Jr./EVP
Date: 35887**

| Emission Source | Potential Total VOC Emissions (Tons/yr) | Limited Total VOC Emissions (Tons/yr) |
|-------------------------------|---|---------------------------------------|
| For This Facility only---->>> | (Uncontrolled) | Controlled |
| Truck Loading | 656.92 | 24.16 |
| Truck Loading Fugitives | 0 | 5.78 |
| Storage Tanks | 11.56 | 10.77 |
| Other Insignificant | 0.06 | 0.06 |
| Equipment Fugitives | 0.35 | 0.35 |
| Total | 668.89 | 41.12 |