

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**TransMontaigne Terminaling, Inc.
3821 Indianapolis Boulevard
East Chicago, Indiana 46312**

(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 2-7 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.

Operation Permit No.: T089-9291-00320	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary pipeline breakout tank farm.

Responsible Official: Mr. Dudley R. Tarlton
Source Address: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
Mailing Address: 280 North College Avenue, Suite 500, Fayetteville, AR 72702
SIC Code: 4613
County Location: Lake
County Status: Nonattainment area for Ozone
Primary area for Oxide of sulfur (SO₂)
Moderate area for Particulate Matter less than 10 microns (PM₁₀)
Attainment area for other criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under Emission Offset Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

- (1) One (1) vertical external floating roof storage tank no.106 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,484 gallons;
- (2) One (1) vertical external floating roof storage tank no.107 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,031,884 gallons;
- (3) One (1) vertical external floating roof storage tank no.108 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,783 gallons;
- (4) One (1) vertical external floating roof storage tank no.112 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,075,798 gallons;
- (5) One (1) vertical external floating roof storage tank no.120 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal with a maximum design capacity of 2,853,291 gallons;

- (6) One (1) vertical external floating roof storage tank no.123 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,818,841 gallons;
- (7) One (1) vertical external floating roof storage tank no.130 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (8) One (1) vertical external floating roof storage tank no.131 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (9) One (1) vertical external floating roof storage tank no.132 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (10) One (1) Internal floating roof above ground storage tank no.133 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Liquid Mounted Primary and Rim Mounted Secondary seal, maximum design capacity of 3,915,368 gallons;
- (11) One (1) Internal floating roof above ground storage tank no.134 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (12) One (1) Internal floating roof above ground storage tank no.135 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (13) One (1) existing fixed roof tank modified into a new Internal floating roof above ground storage tank no. 151 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (14) Two (2) tanks cleaning operation per year, including one (1) tank of gasoline service and one (1) tank of distillate service.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

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

- (1) Other categories with emissions below insignificant thresholds:
 - (a) One (1) vertical fixed roof cone storage tank no.103 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 836,368 gallons;

- (b) One (1) vertical fixed roof cone storage tank no.122 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 2,853,291 gallons;
- (c) One (1) vertical fixed roof cone storage tank no.140 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (d) One (1) vertical fixed roof cone storage tank no.141 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (e) One (1) vertical fixed roof cone storage tank no.142 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (f) One (1) vertical fixed roof cone storage tank no.150 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (g) Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC:
 - (1) One hundred seventeen (117) Valves;
 - (2) Fifteen (15) Pumps;
 - (3) Four hundred seventy-five (475) Flanges;
 - (4) Thirty (30) Pump Seals.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

- (a) 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 Part 70 permit under 326 IAC 2-7.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."

B.2 Definitions [326 IAC 2-7-1]

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 2-7-5(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 2-7-7(a)]

- (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 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.6 Severability [326 IAC 2-7-5(5)]

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 2-7-5(6)(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 2-7-4(b)] [326 IAC 2-7-5(6)(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. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must 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, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must 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 with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(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; or
 - (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.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(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.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (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 April 15 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

and

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

- (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 based on continuous or intermittent data;
 - (4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
 - (5) Any insignificant activity that has been added without a permit revision; and
 - (6) Such other facts, as specified in Sections D of this permit, as IDEM, OAM, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

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

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

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

- (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.13 Emergency Provisions [326 IAC 2-7-16]

- (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 2-7-16.
- (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 Number: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (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 2-7-5(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(34).

- (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 2-7-4-(c)(9) 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 2-7 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 materials of substantial economic value.

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

B.14 Permit Shield [326 IAC 2-7-15]

- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that:
 - (1) The applicable requirements are included and specifically identified in this permit; or
 - (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAM, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAM, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), 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) A 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 is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

**B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit 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 2-7-5(6)(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 2-7-9(a)(3)]
- (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 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(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 2-7-9(c)]

B.18 Permit Renewal [326 IAC 2-7-4]

- (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 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

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, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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 2-7 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 being needed to process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAM, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(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 2-7-20(a) and the following additional conditions:

- (a) 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) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

B.22 Operational Flexibility [326 IAC 2-7-20]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a 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 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (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(34).

- (c) Emission Trades [326 IAC 2-7-20(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 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(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 2-7-5(9). 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.23 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.24 Inspection and Entry [326 IAC 2-7-6(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 Part 70 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 2-7-6(6)]
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
 - (2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]

Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (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 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 2-7-11. 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(34).
- (c) IDEM, OAM, shall reserve the right to issue a new permit.

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Major Source

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 and 326 IAC 2-3 (Emission Offset), this source is a major source.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 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 twenty percent (20%) opacity in twenty-four (24) consecutive readings, as determined in 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

C.6 Fugitive Dust Emissions [326 IAC 6-1-11.1]

The Permittee shall be in violation of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10%). Compliance with this opacity limit shall be determined by 40 CFR 60, Appendix A, Method 9.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the tanks vented to the control equipment are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [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 ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by 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 prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the 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.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Schedule [326 IAC 2-7-6(3)]

The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(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 may extend compliance schedule an additional ninety (90) days provided the Permittee notifies:

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

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

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.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable 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.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval 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 ninety (90) days after the date of issuance of this permit.

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process 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.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

- (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 [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (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.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6 that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
- (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) The annual emission statement 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.18 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (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 stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (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 for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (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.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring 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 as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (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.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) One (1) vertical external floating roof storage tank no.106 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,484 gallons;
- (2) One (1) vertical external floating roof storage tank no.107 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,031,884 gallons;
- (3) One (1) vertical external floating roof storage tank no.108 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,783 gallons;
- (4) One (1) vertical external floating roof storage tank no.112 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,075,798 gallons;
- (5) One (1) vertical external floating roof storage tank no.120 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal with a maximum design capacity of 2,853,291 gallons;
- (6) One (1) vertical external floating roof storage tank no.123 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,818,841 gallons;
- (7) One (1) vertical external floating roof storage tank no.130 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (8) One (1) vertical external floating roof storage tank no.131 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (9) One (1) vertical external floating roof storage tank no.132 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68° F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;

Emission Limitations and Standards [326 IAC 2-7-5(1)] [328 IAC 8]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

- (a) The owner or operator of each vessel identified as tank 106, 107, 108, 112, 120, 123, 130, 131, and 132 with a capacity greater than or equal to thirty-nine thousand (39,000) gallons, that stores VOL with a maximum true vapor pressure greater than or equal to seventy-five hundredths (0.75) pound per square inch absolute (psia) but less than eleven and one-tenth (11.1) psia shall do the following:
- (1) For each vessel having an external floating roof, install one (1) of the following:
 - (A) At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996, an external floating roof meeting the standards in subsection (b).
- (b) Standards applicable to each external floating roof are as follows:
- (1) Each external floating roof shall be equipped with a closure device between the wall of the vessel and the roof edge. The closure device shall consist of two (2) seals, one (1) above the other. The lower seal shall be referred to as the primary seal; the upper seal shall be referred to as the secondary seal.
 - (2) Except as provided in section 5(c)(4) of this rule, the primary seal shall completely cover the annular space between the edge of the floating roof and vessel wall and shall be either a liquid-mounted seal or a shoe seal.
 - (3) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the vessel in a continuous fashion except as allowed in section 5(c)(4) of this rule.
 - (4) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.
 - (5) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times, without visible gap, except when the device is in actual use.
 - (6) Automatic bleeder vents shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
 - (7) Rim vents shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents shall be gasketed.
 - (8) Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least ninety percent (90%) of the area of the opening.

- (9) The roof shall be floating on the liquid at all times, for example, off the roof leg supports, except when the vessel is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

Compliance Determination Requirements

D.1.2 Testing and Procedures [326 IAC 2-7-6(1),(6)] [326 IAC 8-9-5]

- (a) The owner or operator of each vessel subject to section 4(a) of this rule shall meet the requirements of subsection (b).
- (b) The owner or operator of each vessel equipped with an external floating roof shall meet the following requirements:
 - (1) Determine the gap areas and maximum gap widths between the primary seal and the wall of the vessel and between the secondary seal and the wall of the vessel according to the following frequency:
 - (A) Measurements of gaps between the vessel wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within sixty (60) days of the initial fill with VOL and at least once every five (5) years thereafter.
 - (B) Measurements of gaps between the vessel wall and the secondary seal shall be performed within sixty (60) days of the initial fill with VOL and at least once per year thereafter.
 - (C) If any source ceases to store VOL for a period of one (1) year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for purposes of this subdivision.
 - (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
 - (A) Measure seal gaps, if any, at one (1) or more floating roof levels when the roof is floating off the roof leg supports.
 - (B) Measure seal gaps around the entire circumference of the vessel in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the vessel and measure the circumferential distance of each such location.
 - (C) The total surface area of each gap described in clause (B) shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.
 - (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each by the nominal diameter of the vessel and compare each ratio to the respective standards in subdivision (4).

- (4) Make necessary repairs or empty the vessel within forty-five (45) days of identification of seals not meeting the requirements listed in clauses (A) and (B) as follows:
 - (A) The accumulated area of gaps between the vessel wall and the mechanical shoe or liquid-mounted primary seal shall not exceed ten (10) square inches per foot of vessel diameter, and the width of any portion of any gap shall not exceed one and five-tenths (1.5) inches. There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
 - (B) The secondary seal shall meet the following requirements:
 - (i) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in subdivision (2)(C).
 - (ii) The accumulated area of gaps between the vessel wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal shall not exceed one (1) square inch per foot of vessel diameter, and the width of any portion of any gap shall not exceed five-tenths (0.5) inch. There shall be no gaps between the vessel wall and the secondary seal when used in combination with a vapor-mounted primary seal.
 - (iii) There shall be no holes, tears, or other openings in the seal or seal fabric.
 - (C) If a failure that is detected during inspections required in subdivision (1) cannot be repaired within forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the department in the inspection report required in section 6(d)(3) of this rule. Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the department thirty (30) days in advance of any gap measurements required by subdivision (1) to afford the department the opportunity to have an observer present.
- (6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. For all visual inspections, the following requirements apply:
 - (A) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this clause exist before filling or refilling the vessel with VOL.
 - (B) The owner or operator shall notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel to afford the department the opportunity to inspect the vessel prior to the filling.

If the inspection required by this subdivision is not planned and the owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel, the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the department at least seven (7) days prior to the refilling.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.3 There are no compliance monitoring requirements for the facilities covered in this section.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19][326 IAC 8]

D.1.4 Record Keeping Requirements [326 IAC 8-9-6] [326 IAC 8-4-3]

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

- (b) The owner or operator of each vessel shall maintain a record and submit to the department a report containing the following information for each vessel:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.
 - (4) A description of the emission control equipment for each vessel with a certification that the emission control equipment meets the applicable standards.

- (c) The owner or operator of each vessel equipped with an external floating roof shall comply with the following record keeping and reporting requirements:
 - (1) Keep a record of each gap measurement performed as required by section 5(c) of this rule. Each record shall identify the vessel in which the measurement was made and shall contain the following:
 - (A) The date of measurement.
 - (B) The raw data obtained in the measurement.
 - (C) The calculations described in section 5(c)(2) and 5(c)(3) of this rule.

 - (2) Within sixty (60) days of performing the seal gap measurements required by section 5(c)(1) of this rule, furnish the department with a report that contains the following:
 - (A) The date of measurement.
 - (B) The raw data obtained in the measurement.
 - (C) The calculations described in section 5(c)(2) and 5(c)(3) of this rule.

- (3) After each seal gap measurement that detects gaps exceeding the limitations specified in section 5(c) of this rule, submit a report to the department within thirty (30) days of the inspection. The report shall identify the vessel and contain the information specified in subdivision (2) and the date the vessel was emptied or the repairs made and date of repair.
- (d) Available data on the storage temperature may be used to determine the maximum true vapor pressure as follows:
 - (1) The maximum true vapor pressure for VOLs stored at temperatures above or below the ambient temperature shall correspond to the highest calendar-month average storage temperature. The maximum true vapor pressure for VOLs stored at the ambient temperature shall correspond to the local maximum monthly average temperature, as reported by the National Weather Service.
 - (2) For local crude oil or refined petroleum products, the maximum vapor pressure may be determined as follows:
 - (A) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 unless the department specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the samples.
 - (B) The maximum true vapor pressure of each type of crude oil with a Reid vapor pressure less than two (2) pounds per square inch or with physical properties that preclude determination by the recommended method shall be determined from available data and recorded if the estimated maximum true vapor pressure is greater than five-tenths (0.5) psia.
 - (3) For other liquids, the maximum true vapor pressure may be determined by any of the following methods:
 - (A) Standard reference texts.
 - (B) ASTM Method D2879-92*.
 - (C) Calculated or measured by a method approved by the department.
- (e) Pursuant to 326 IAC 8-4-3(d) (Petroleum Sources: Petroleum Liquid Storage Facilities), the owner or operator of petroleum liquid storage vessels identified as 106, 107, 108, 112, 120, 123, 130, 131, and 132 shall maintain records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed on the storage vessels. Such records shall be maintained for a period of two (2) years and shall be made available to the commissioner upon written request.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (10) One (1) Internal floating roof above ground storage tank no.133 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68°F. The tank is equipped with a Liquid Mounted Primary and Rim Mounted Secondary seal, maximum design capacity of 3,915,368 gallons;
- (11) One (1) Internal floating roof above ground storage tank no.134 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68°F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (12) One (1) Internal floating roof above ground storage tank no.135 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68°F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (13) One (1) existing fixed roof tank modified into a new Internal floating roof above ground storage tank no. 151 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68°F. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (14) Two (2) tanks cleaning operation per year, including one (1) tank of gasoline service and one (1) tank of distillate service.

Emission Limitations and Standards [326 IAC 2-7-5(1)] [328 IAC 8]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984).

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60.112b]

- (a) the owner or operator of the tanks identified as 134 and 135 shall equip each tank with the following:
 - (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
 - (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

- (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
 - (A) A foam or liquid -filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid mounted seal means a foam - or liquid filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
 - (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
 - (C) A Mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelop) spans the annular space between the metal sheet and the floating roof.
- (iii) Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

- (a) The owner or operator of the tanks identified as 133, and 151 shall do the following:
 - (1) On or before May 1, 1996, for each vessel having a permanently affixed roof, install one (1) of the following:
 - (A) An internal floating roof meeting the standards in subsection (b).

- (2) For each vessel having an internal floating roof, install one (1) of the following:
 - (A) At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996, an internal floating roof meeting the standards in subsection (b).
- (3) For each vessel subject to this subsection, the owner or operator described in the report required in section 6(b) of this rule, install the following:
 - (A) Emission control equipment.
- (b) Standards applicable to each internal floating roof are as follows:
 - (1) The internal floating roof shall float on the liquid surface, but not necessarily in complete contact with it, inside a vessel that has a permanently affixed roof.
 - (2) The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the vessel is completely emptied or subsequently emptied and refilled.
 - (3) When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
 - (4) Each internal floating roof shall be equipped with one (1) of the following closure devices between the wall of the vessel and the edge of the internal floating roof:
 - (A) A foam or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal).
 - (B) Two (2) seals mounted one (1) above the other so that each forms a continuous closure that completely covers the space between the wall of the vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
 - (C) A mechanical shoe seal that consists of a metal sheet held vertically against the wall of the vessel by springs or weighted levers and that is connected by braces to the floating roof. A flexible coated fabric, or envelope, spans the annular space between the metal sheet and the floating roof.
 - (5) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents shall provide a projection below the liquid surface.
 - (6) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid that shall be maintained in a closed position at all times (with no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
 - (7) Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
 - (8) Rim space vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
 - (9) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least ninety percent (90%) of the opening.

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

D.2.4 Emission Offset Minor Limit [326 IAC 2-3]

- (a) The facilities identified as 134,135 and 151 shall use no more than 544,320,000 gallons of petroleum product per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to no greater than 20.20 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) not applicable.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the facilities identified as 134,135 and 151.

Compliance Determination Requirements

D.2.6 Testing and Procedures [326 IAC 12] [40 CFR 60.113b]

- (a) The owner or operator of the facilities identified as 134 and 135 shall do the following:
 - (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
 - (2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator (IDEM) in the inspection report required in § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
 - (3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):
 - (i) Visually inspect the vessel as specified in paragraph (4) of this section at least every 5 years; or
 - (ii) Visually inspect the vessel as specified in paragraph (2) of this section.
 - (4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the

- owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (2) and (3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (3)(i) of this section.
- (5) Notify the Administrator (IDEM) in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (1) and (4) of this section to afford the Administrator (IDEM) the opportunity to have an observer present. If the inspection required by paragraph (4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator (IDEM) at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator (IDEM) at least 7 days prior to the refilling.

D.2.7 Testing and Procedures [326 IAC 8-9-5]

- (a) The owner or operator of the tank identified as 151 equipped with an internal floating roof shall meet the following requirements:
- (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal, if one is in service, prior to filling the vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the vessel.
- (2) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal, if one is in service, through manholes and roof hatches on the fixed roof at least once every twelve (12) months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the vessel from service within forty-five (45) days. If a failure that is detected during inspections required in this section cannot be repaired in forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the department in the inspection report required in section 6(c)(3) of this rule. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (3) For vessels equipped with both primary and secondary seals:
- (A) visually inspect the vessel as specified in subdivision (4), at least every five (5) years; or
- (B) visually inspect the vessel as specified in subdivision (2).

- (4) Visually inspect the internal floating roof, the primary seal, the secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals each time the vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than ten percent (10%) open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this subdivision exist before refilling the vessel with VOL. In no event shall the inspections required by this subsection occur at intervals greater than ten (10) years in the case of vessels conducting the annual visual inspection as specified in subdivisions (2) and (3)(B) and at intervals no greater than five (5) years in the case of vessels specified in subdivision (3)(A).
- (5) Notify the department in writing at least thirty (30) days prior to the filling or refilling of each vessel for which an inspection is required by subdivisions (1) and (4) to afford the department the opportunity to have an observer present. If the inspection required by subdivision (4) is not planned and the owner or operator could not have known about the inspection thirty (30) days in advance of refilling the vessel, the owner or operator shall notify the department at least seven (7) days prior to the refilling of the vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the department at least seven (7) days prior to the refilling.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.8 There are no compliance monitoring requirements for the facilities covered in the Section D.2.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.2.9 Record Keeping Requirements [326 IAC 12] [40 CFR 60.115b] [326 IAC 8-4-3]

- (a) Pursuant to 40 CFR 60.115b, the owner or operator of the tanks identified as 134 and 135 shall keep copies of all reports and records for at least 2 years. The owner or operator of the tanks identified as 134 and 135 shall meet the following requirements:
 - (1) Keep a record of each inspection performed as required by § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
 - (2) If any of the conditions described in § 60.113b(a)(2) are detected during the annual visual inspection required by § 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
 - (3) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in § 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of § 61.112b(a)(1) or § 60.113b(a)(3) and list each repair made.

- (b) Pursuant to 326 IAC 8-4-3(d) (Petroleum Sources: Petroleum Liquid Storage Facilities), the owner or operator of petroleum liquid storage vessels identified as 133, 134, 135 and 151 shall maintain records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed on the storage vessels. Such records shall be maintained for a period of two (2) years and shall be made available to the commissioner upon written request.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.10 Record Keeping and Reporting Requirements [326 IAC 8-9-6]

- (a) The owner or operator of the tanks 133, and 151 shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.
- (b) The owner or operator of the tanks identified as 133, and 151 shall maintain a record and submit to the department a report containing the following information for each vessel:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.
 - (4) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.
- (c) The owner or operator of the tanks identified as 133, and 151 shall comply with the following record keeping and reporting requirements:
 - (1) Keep a record of each inspection performed as required by section 5(b)(1) through 5(b)(4) of this rule. Each record shall identify the following:
 - (A) The vessel inspected by identification number.
 - (B) The date the vessel was inspected.
 - (C) The observed condition of each component of the control equipment, including the following:
 - (i) Seals.
 - (ii) Internal floating roof.
 - (iii) Fittings.
 - (2) If any of the conditions described in section 5(b)(2) of this rule are detected during the required annual visual inspection, a record shall be maintained and a report shall be furnished to the department within thirty (30) days of the inspection. Each report shall identify the following:
 - (A) The vessel by identification number.
 - (B) The nature of the defects.
 - (C) The date the vessel was emptied or the nature of and date the repair was made.
 - (3) After each inspection required by section 5(b)(3) of this rule that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in section 5(b)(3)(B) of this rule, a record shall be maintained and a report shall be furnished to the department within thirty (30) days of the inspection. The report shall identify the following:

- (A) The vessel by identification number.
 - (B) The reason the vessel did not meet the specifications of section 4(a)(1)(A), 4(a)(2)(A), or 5(b) of this rule and list each repair made.
- (d) Available data on the storage temperature may be used to determine the maximum true vapor pressure at the tanks identified as 133, and 151 as follows:
- (1) The maximum true vapor pressure for VOLs stored at temperatures above or below the ambient temperature shall correspond to the highest calendar-month average storage temperature. The maximum true vapor pressure for VOLs stored at the ambient temperature shall correspond to the local maximum monthly average temperature, as reported by the National Weather Service.
 - (2) For local crude oil or refined petroleum products, the maximum vapor pressure may be determined as follows:
 - (A) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517* unless the department specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the samples.
 - (B) The maximum true vapor pressure of each type of crude oil with a Reid vapor pressure less than two (2) pounds per square inch or with physical properties that preclude determination by the recommended method shall be determined from available data and recorded if the estimated maximum true vapor pressure is greater than five-tenths (0.5) psia.
 - (3) For other liquids, the maximum true vapor pressure may be determined by any of the following methods:
 - (A) Standard reference texts.
 - (B) ASTM Method D2879-92.
 - (C) Calculated or measured by a method approved by the department.

D.2.11 Reporting Requirements [326 IAC 12] [40 CFR 60.115b]

- (a) Pursuant to 40 CFR 60.115b, the owner or operator of the tanks identified as 134 and 135 shall meet the following requirements:
 - (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(1) and § 60.113b(a)(1). This report shall be an attachment to the notification required by § 60.7(a)(3).
- (b) A quarterly summary of the information to document compliance with Condition D.1.4, the owner or operator of the tanks identified as 134, 135 and 151 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS - INSIGNIFICANT ACTIVITIES

Facility Description [326 IAC 2-7-5(15)]

Six (6) fixed cone roof storage tanks Nos. 103, 122, 140, 141, 142, 150 with the following specifications:

- (a) One (1) vertical fixed roof cone storage tank no.103 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 836,368 gallons;
- (b) One (1) vertical fixed roof cone storage tank no.122 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 2,853,291 gallons;
- (c) One (1) vertical fixed roof cone storage tank no.140 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (d) One (1) vertical fixed roof cone storage tank no.141 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (e) One (1) vertical fixed roof cone storage tank no.142 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (f) One (1) vertical fixed roof cone storage tank no.150 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Prior to any changes in the operation, the change must be approved by the Indiana Department of Environmental Management (IDEM).

Compliance Determination Requirements

D.3.2 Testing Requirements [326 IAC 2-7-6(1), (6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.3 There are no compliance monitoring requirements for these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.4 Record Keeping and Reporting Requirements [326 IAC 8-9-6]

- (a) The fixed cone roof storage vessels shall comply with the record keeping and reporting requirements as outline in 326 IAC 8-9-6.
- (b) Pursuant to 326 IAC 8-9-6(b), records of each vessel including the vessel identification number, dimensions, capacity, and a description of the emission control equipment shall be maintained for the life of the vessel.
- (c) Pursuant to 326 IAC 8-9-6(h), the source shall maintain a record and notify the department within thirty (30) days when the maximum true vapor pressure of the liquid exceeds seventy-five hundreds (0.75) psia.

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

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: TransMontaigne Terminals, Inc.
Source Address: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
Mailing Address: 280 North College Avenue, Suite # 500, Fayetteville, AR 72702
Part 70 Permit No.: T089-9291-00320

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 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**

**PART 70 OPERATING PERMIT
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: TransMontaigne Terminals, Inc.
Source Address: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
Mailing Address: 280 North College Avenue, Suite # 500, Fayetteville, AR 72702
Part 70 Permit No.: T089-9291-00320

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)
- The 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
 - The 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)
- The 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: _____

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

Quarterly Report

Source Name: TransMontaigne Terminals, Inc.
 Source Address: 3821 Indianapolis Boulevard, East Chicago, IN 46312
 Mailing Address: 280 North College Avenue, Suite # 500, Fayetteville, AR 72702
 Facilities: Tanks - 134, 135 and 151
 Parameter: VOC
 Limit: 544,320,000 gallons petroleum products per 12 months,
 First Year Limit: 45, 360,000 gallons petroleum products per month

YEAR: _____

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

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**

**PART 70 OPERATING PERMIT
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: TransMontaigne Terminaling, Inc.
Source Address: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
Mailing Address: 280 North College Avenue, Suite # 500, Fayetteville, AR 72702
Part 70 Permit No.: T089-9291-00320

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring 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 in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement	Number of Deviations	Date of each Deviation

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 Part 70 Operating Permit

Source Background and Description

Source Name: TransMontaigne Terminaling, Inc.
Source Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
SIC Code: 4613
Operation Permit No.: T089-9291-00320
Permit Reviewer: Manoj P. Patel

The Office of Air Management (OAM) has reviewed a Part 70 permit application from TransMontaigne Terminaling, Inc. relating to the operation of a pipeline breakout tank farm.

Source Definition

There are two tank farms with the same SIC 4613 located in Schererville and East Chicago, Indiana and owned and operated by TransMontaigne Terminaling, Inc. The distance between these two tank farms is approximately 11.50 miles and the tank farms do not have a support relationship. Therefore, these two (2) TransMontaigne Terminaling, Inc. will be treated as two (2) separate sources.

Permitted Emission Units and Pollution Control Equipment

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

- (1) One (1) vertical external floating roof storage tank no.106 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,484 gallons;
- (2) One (1) vertical external floating roof storage tank no.107 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,031,884 gallons;
- (3) One (1) vertical external floating roof storage tank no.108 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 1,054,783 gallons;
- (4) One (1) vertical external floating roof storage tank no.112 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,075,798 gallons;

- (5) One (1) vertical external floating roof storage tank no.120 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal with a maximum design capacity of 2,853,291 gallons;
- (6) One (1) vertical external floating roof storage tank no.123 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 2,818,841 gallons;
- (7) One (1) vertical external floating roof storage tank no.130 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (8) One (1) vertical external floating roof storage tank no.131 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (9) One (1) vertical external floating roof storage tank no.132 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, with a maximum design capacity of 3,915,368 gallons;
- (10) One (1) Internal floating roof above ground storage tank no.133 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Liquid Mounted Primary and Rim Mounted Secondary seal, maximum design capacity of 3,915,368 gallons;
- (11) One (1) Internal floating roof above ground storage tank no.134 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (12) One (1) Internal floating roof above ground storage tank no.135 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (13) One (1) existing fixed roof tank modified into a new Internal floating roof above ground storage tank no. 151 used to store petroleum products with a maximum true vapor pressure of 9.15 psia at 68^oF. The tank is equipped with a Mechanical Shoe Primary and Rim Mounted Secondary seal, maximum design capacity of 5,040,000 gallons;
- (14) Two (2) tanks cleaning operation per year, including one (1) tank of gasoline service and one (1) tank of distillate service;

Insignificant Activities

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

- (1) Other categories with emissions below insignificant thresholds:
Insignificant thresholds: Activities with emissions equal to or less than threshold requires listing only.

Lead (Pb) = 0.6 ton/year or 3.29 lbs/day Carbon Monoxide (CO) = 25 lbs/day
Sulfur Dioxide (SO₂) = 5 lbs/hour or 25 lbs/day Particulate Matter (PM) = 5 lbs/hr or 25 lbs/day
Nitrogen Oxides (NO_x) = 5 lbs/hour or 25 lbs/day Volatile Organic Compounds (VOC) = 3 lbs/hour or 15 lbs/day

- (a) One (1) vertical fixed roof cone storage tank no.103 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 836,368 gallons;
- (b) One (1) vertical fixed roof cone storage tank no.122 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 2,853,291 gallons;
- (c) One (1) vertical fixed roof cone storage tank no.140 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (d) One (1) vertical fixed roof cone storage tank no.141 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (e) One (1) vertical fixed roof cone storage tank no.142 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (f) One (1) vertical fixed roof cone storage tank no.150 used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68^oF, with a maximum design capacity of 3,382,609 gallons;
- (g) Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC:
 - (1) One hundred seventeen (117) Valves;
 - (2) Fifteen (15) Pumps;
 - (3) Four hundred seventy-five (475) Flanges;
 - (4) Thirty (30) Pump Seals.

Existing Approvals

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

- (1) A 089-8119-00320 (Transfer of Existing Operation Permits from Mobil Oil Corporation to TransMontaigne Terminals, Inc.) issued on April 10, 1997 for OP-2360-0320-0470 & 0471 issued on July 31, 1990.
- (2) CP-089-9508-00320, issued on July 17, 1998.

All conditions from previous approvals were incorporated into this Part 70 permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit 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 Part 70 permit application for the purposes of this review was received on December 12, 1997.

Emission Calculations

- (a) See Appendix A through S of this document for detailed emissions calculations.
- (b) Storage Tank Cleaning Operation:

The Company estimates 2-storage tanks will be cleaned within each calendar year. Cleaning agents include water, steam, bases, solvents, which are applied with a hand-held pressure wands, or rapping spray heads placed through the opening in the top of the tank. Vapors from tank cleaning not flared or dissolved in water are dissipated to the atmosphere.

Total estimated volatile organic compounds (VOC) emissions	=	6226 pounds
		per year
	=	3.11 tons/year

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	> 25
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.

HAP's	Potential Emissions (tons/year)
Hexane	0.528
Benzene	0.30
Toluene	0.43
TOTAL	1.70

- (a) The potential emissions (as defined in 326 IAC 1-2-55) of VOC are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.002
PM-10	0.0
SO ₂	0.0
VOC	48.53
CO	0.01
NO _x	0.05
HAPs	1.10

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Tanks* [134, 135, and 151]				20.25			
Total Emissions				20.25			

- *(a) Pursuant to CP-089-9508-00320, the modification to an existing major stationary source was not major because the emissions increases were less than the Emission Offset significant levels.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
TSP	Attainment
PM-10	Moderate nonattainment
SO ₂	Primary nonattainment
NO ₂	Severe nonattainment
Ozone	Severe nonattainment
CO	Maintenance nonattainment
Lead	Unclassifiable

- (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. Lake County has been designated as nonattainment for ozone.

Federal Rule Applicability

- (a) The tanks identified as 134 and 135 are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.112b, Subpart Kb). Pursuant to 40 CFR 60.112b, the owner or operator of the tanks identified as 134 and 135 shall equip each tank with the following:
- (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
 - (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during an initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
 - (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
 - (A) A foam or liquid -filled seal mounted in contact with the liquid (a liquid-mounted seal). A liquid mounted seal means a foam - or liquid filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
 - (iii) Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vent is to provide a projection below the liquid surface.

- (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains are to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

The testing procedures are required under 40 CFR 60.113b and the record keeping and reporting required under 40 CFR 60.115b.

- (b) The existing vertical fixed roof cone storage tanks identified as 103, 122, 140, 141, 142, and 150 are not subject to 40 CFR 60.110, 60.110a, and 60.110b, Subparts K, Ka, and Kb because they were constructed in 1941.
- (c) The existing external floating roof storage tanks identified as 106, 107, 108, 112, 120, 123, 130, and 132 are not subject to 40 CFR 60.110, 60.110a, and 60.110b, Subparts K, Ka, and Kb because they were constructed between year 1935 through 1957.
- (d) The National Emissions Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) 40 CFR 63.420 (Subpart R) does not apply to this source, because the source has documented and recorded that the emission screening factor (E_p) is less than 1 with the equation as follows:

$$E_p = CF [6.7 (T_F) (1 - CE) + 0.21 (T_E) + 0.093 (T_{ES}) + 0.10 (T_I) + 5.31 \times 10^{-6} (C)]$$

- E_p = emission screening factor for pipeline breakout stations;
- CF = 0.161 for bulk gasoline terminals that do not handle any reformulated or oxygenated gasoline;
- T_F = total numbers of fixed-roof gasoline storage vessels without an internal floating roof;
- CE = federally enforceable control efficiency of the vapor processing system used to control emissions from the fixed roof gasoline storage vessels;
- T_E = total numbers of external floating roof gasoline storage vessels with only primary seals;

$$\begin{aligned} T_{ES} &= \text{total numbers of external floating roof gasoline storage vessels with} \\ &\quad \text{primary and secondary seals;} \\ T_I &= \text{total numbers of fixed-roof gasoline storage vessels with an internal} \\ &\quad \text{floating roof;} \\ C &= \text{numbers of valves, pumps, connectors, loading arms valves, and open} \\ &\quad \text{ending lines in gasoline service,} \\ E_P &= 0.161[6.7*0+ 0.21*0 + 0.093*(13) + 0.10 (3) + 5.31 \times 10^{-6} * (178)] \\ &= 0.161[1.209 + 0.30+ 0.000945] \\ &= 0.161[1.51] \\ &= 0.243 \\ &= < 1 \end{aligned}$$

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of volatile organic compounds (VOC). Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-3 (Emission Offset)

This rule applies to new and modified major stationary sources or major modifications constructed in an area designated in 326 IAC 1-4 as nonattainment as of the date of submittal of a complete application, for a pollutant for which the stationary source or modification is major. This rule does not apply to modification of this source because the VOC emissions are limited to 20.25 tons per year (CP-089-9508-00320).

326 IAC 5-1-2 (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 from a facility located in Lake County shall not exceed an average of twenty (20%) opacity in twenty-four (24) consecutive readings unless otherwise specified in 326 6-1-10.1.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to this rule, fugitive particulate matter emissions shall not be visible crossing the property lines. No violations of this rule have been observed at this source.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The source is not subject to 326 IAC 7-1.1 because none of the facilities have the potential to emit twenty-five (25) tons per year or ten (10) pounds 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.

326 IAC 8-4 (Petroleum Sources)

This rule applies to source located in any of eight counties, including Lake. This source is located in Lake County, therefore, pursuant to 326 IAC 8-4-1 this rule applies.

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

This rule applies to stationary sources located in Lake, Porter, Clark, or Floyd County that emit or have the potential to emit volatile organic compounds (VOCs) at levels equal to or greater than twenty-five (25) tons per year (TPY) in Lake and Porter Counties and one hundred (100) TPY in Clark and Floyd Counties. In accordance with 326 IAC 8-7-2(a)(3)(C) & (Q), facilities covered by 326 IAC 8-4 (Petroleum Sources) and volatile organic liquid storage facilities, are not "affected facilities" and should be not considered in determining the applicability to this rule. Therefore, this source is not subject to the requirements of this rule.

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

This source is not subject to 326 IAC 8-4-4 requirements because this source is not a bulk gasoline terminal. Pursuant to 326 IAC 1-2-8, a bulk gasoline terminal defined as a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, barge or rail, and delivers gasoline to bulk plants or to commercial or retail accounts primarily by transport.

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

This is not subject to 326 IAC 8-4-5 requirements because this source is not a bulk gasoline plant. Pursuant to 326 IAC 1-2-7, a bulk gasoline plant defined as a gasoline storage and distribution facility which receives gasoline from bulk terminals by transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, business, and services stations.

326 IAC 8-4-6 (Gasoline Dispensing Facilities)

This source is not subject to 326 IAC 8-4-6 requirements because it is not a gasoline dispensing facility. Pursuant to 326 IAC 8-4-6(a)(8), gasoline dispensing facility means any facility where gasoline is dispensed into motor vehicle fuel tanks or portable containers from a storage tanks with a capacity of two thousand one hundred seventy-six (2,176) liters (five hundred seventy-five (575) gallons) or more. Diesel fuels and kerosene are not considered to be motor fuel vehicle fuels.

State Rule Applicability - Individual Facilities

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

- (a) The internal floating roof above ground vertical storage tanks identified as 133, 134, 135 and 151 are subject to 326 IAC 8-4-3 (Petroleum Sources: Petroleum Liquid Storage Facilities), because the tanks have storage capacity of greater than one hundred fifty-thousand (150, 000) liters (thirty-nine thousand (39,000) gallons) containing volatile organic compounds whose true vapor pressure is greater than 10.5 kPa (1.52 psi).
- (b) This rule applies to the external floating roof vertical storage tanks identified as 106, 107, 108, 112, 120, 123, 130, 131 and 132 because the listed tanks contain petroleum products and have capacities greater than one hundred fifty-thousand (150,000) liters [39,000 gallons] containing volatile organic compounds whose true vapor pressure is greater than 10.5kPa (1.52psi).
- (c) Storage tanks Nos. 103, 122, 140, 141, 142, and 150 are not subject to this rule. While the listed tanks contain petroleum liquids and have capacities greater than one hundred fifty-thousand (150,000) liters [39,000 gallons], they each store volatile compounds with a true vapor pressure (TVP) less than 10.5 kPa (1.52 psi). Therefore, pursuant to 326 IAC 8-4-3, the requirements of this rule do not apply.

326 IAC 8-9 (Volatile Organic Liquid Vessels)

- (a) This rule applies to all stationary vessels at TransMontaigne Terminaling, Inc. used to store volatile organic liquid (VOL) except for storage tanks Nos. 134 and 135 which are subject to 40 CFR 60, Subpart Kb, New Source Performance Standard for Volatile Organic Liquid Storage and Storage tanks Nos. 103, 122, 140, 141, 142, 150 which are fixed-cone roof tanks storing VOLs with a true vapor pressure less than five-tenths (0.5) pounds per square inch absolute (psia). The rule specifies equipment standards and monitoring requirements for applicable storage vessels.
- (b) Storage Tanks Nos. 106, 107, 108, 112, 120, 123, 130, 131, 132, 133 and 151 are subject to 326 IAC 8-94. This rule applies to all storage vessels with a capacity greater than or equal to thirty-nine thousand (39,000) gallons that store VOL with a maximum true vapor pressure greater than or equal to seventy-five hundredths (0.75) psia but less than eleven and one-tenth (11.1) psia. This rule applies to all stationary vessels at TransMontaigne Terminaling, Inc. used to store volatile organic liquid (VOL). The rule specifies equipment standards requirements for applicable storage vessels.

326 IAC 2-1-3.4 (New Source Toxic Control Rule)

This rule does not apply to the tanks because the tanks do not have a potential to emit more than ten (10) tons per year of any hazardous air pollutant or twenty-five (25) tons of any combination of hazardous air pollutants which are listed in Section 112(b) of the Clean Air Act.

Compliance Requirements

Permits issued under 326 IAC 2-7 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 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) 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) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See Appendix U of this TSD for detailed air toxic calculations.

Conclusion

The operation of this pipeline breakout tank farm shall be subject to the conditions of the attached proposed Part 70 Permit No. T089-9291-00320.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for Part 70 Operating Permit

Source Name: TransMONTaigne Terminaling, Inc.
 Source Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
 County: Lake
 SIC Code: 4613
 Operation Permit No.: T089-9291-00320
 Permit Reviewer: Manoj P. Patel

On September 11, 1998, the Office of Air Management (OAM) had a notice published in the Gary Post Tribune and Hammond Times, Gary and Munster, Indiana, stating that TransMONTaigne Terminaling, Inc. had applied for a Part 70 Operating Permit to operate a pipeline breakout tank farm. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit 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 permit should be issued as proposed.

Upon further review, OAM has made the following changes to the final Part 70 permit (Changes are bolded for emphasis):

1. The new condition related to General Provision Relating to New Source Performance Standards, has been added to section D.2, on page 35 of 50 as follows:

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984).

2. Because of addition of Condition D.2.1 (General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]), the title lines of the following Conditions has been changed:

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60.112b]

to be as follows:

D.2.+2 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60.112b]

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

to be as follows:

D.2.2 3 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

D.2.3 Emission Offset Minor Limit [326 IAC 2-3]

to be as follows:

D.2.3-4 Emission Offset Minor Limit [326 IAC 2-3]

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]

to be as follows:

D.2.4-5 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]

D.2.5 Testing and Procedures [326 IAC 12] [40 CFR 60.113b]

to be as follows:

D.2.5-6 Testing and Procedures [326 IAC 12] [40 CFR 60.113b]

D.2.6 Testing and Procedures [326 IAC 8-9-5]

to be as follows:

D.2.6-7 Testing and Procedures [326 IAC 8-9-5]

D.2.7 There are no compliance monitoring requirements for the facilities covered in the Section D.2.

to be as follows:

D.2.7-8 There are no compliance monitoring requirements for the facilities covered in the Section D.2.

D.2.8 Record Keeping Requirements [326 IAC 12] [40 CFR 60.115b] [326 IAC 8-4-3]

to be as follows:

D.2.8-9 Record Keeping Requirements [326 IAC 12] [40 CFR 60.115b] [326 IAC 8-4-3]

D.2.9 Record Keeping and Reporting Requirements [326 IAC 8-9-6]

to be as follows:

D.2.9-10 Record Keeping and Reporting Requirements [326 IAC 8-9-6]

D.2.10 Reporting Requirements [326 IAC 12] [40 CFR 60.115b]

- (b) A quarterly summary of the information to document compliance with Condition D.1.3, the owner or operator of the tanks identified as 134, 135 and 151 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

to be as follows:

D.2.10-1 Reporting Requirements [326 IAC 12] [40 CFR 60.115b]

- (b) A quarterly summary of the information to document compliance with Condition D.1.3-4, the owner or operator of the tanks identified as 134, 135 and 151 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

3. IDEM is removing this provision from the permit. IDEM now believes that it is not necessary to include this condition in the permit. The issues regarding credible evidence can be adequately addressed when a showing of compliance or noncompliance is made. Indiana's air pollution control laws allow the use of any credible evidence in determining compliance or noncompliance. An explicit statement is not required in the permit. Although the permit may set out specific methods to determine compliance, any other method or other credible evidence may be admissible to demonstrate compliance or noncompliance.

~~B.27 Credible Evidence [326 IAC 2-7-5(3)][62 Federal Register 8313][326 IAC 2-7-6]~~

~~Notwithstanding the conditions of this permit that state specific methods that may be used to assess compliance or noncompliance with applicable requirements, other credible evidence may be used to demonstrate compliance or non-compliance.~~

Appendix A: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 103
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T089-9291-00320

Tank Dimensions

Shell Height (ft): 30.8
Diameter (ft): 68.0
Liquid Height (ft): 26.0
Avg. Liquid Height (ft): 26.0
Volume (gallons): 745710
Turnovers: 36.0
Net Throughput (gal/yr): 26,845,560

Paint Characteristics

Shell Color/Shade: Gray/Light
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 0.00
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Daily Liquid Surf. Temperatures (deg F) Month Avg. Min. Max.	Liquid			Bulk Temp. (deg F)	Vapor			Liquid			Vapor		
		Avg.	Min.	Max.		Temp.	Avg.	Min.	Max.	Mol. Weight	Mass Fract.	Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	53.24	46.80	59.68	50.33	0.0052	0.0041	0.0064	1	30.000			188.00	Option 3: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb): 44.8610
 Vapor Space Volume (cu ft): 20004.51
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.050378
 Vented Vapor Saturation Factor: 0.998493

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 20004.51
 Tank Diameter (ft): 68.0
 Vapor Space Outage (ft): 5.51
 Tank Shell Height (ft): 30.8
 Average Liquid Height (ft): 26.0
 Roof Outage (ft): 0.71

Roof Outage (Cone Roof)

Roof Outage (ft): 0.71
 Roof Height (ft): 0.000
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 34.0

Vapor Density

Vapor Density (lb/cu ft):	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Daily Avg. Liquid Surface Temp.(deg. R)	512.91
Daily Average Ambient Temp. (deg. R)	508.87
Ideal Gas Constant R (psia cuft /(lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	510.00
Tank Paint Solar Absorptance (Shell):	0.36
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor

Vapor Space Expansion Factor:	0.050378
Daily Vapor Temperature Range (deg.R):	25.76
Daily Vapor Pressure Range (psia):	0.002267
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004147
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.006414
Daily Avg. Liquid Surface Temp. (deg R):	512.91
Daily Min. Liquid Surface Temp. (deg R):	506.47
Daily Max. Liquid Surface Temp. (deg R):	519.35
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.998493
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Vapor Space Outage (ft):	5.51

Working Losses (lb):	410.8349
Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Annual Net Throughput (gal/yr):	26,845,560
Turnover Factor:	0.9561
Maximum Liquid Volume (cuft):	94424
Maximum Liquid Height (ft):	26.0
Tank Diameter (ft):	68.0
Working Loss Product Factor:	1.00
 Total Losses (lb):	 455.70

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	44.86	410.83	455.70
Total:	44.86	410.83	455.70

Appendix B: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 106
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 67.0
Volume(gallons): 1054484
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status

Quantity

Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Ga.	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Avg.	Liquid Daily Liquid Surf. Temperatures (deg F)		Bulk Temp. (deg F)	Vapor Vapor Pressures (psia)		Liquid Mol. Weight	Mass Fract.	Mass Weight	Vapor Mol. Calculations	Basis for Vapor Pressure	
			Min.	Max.		Avg.	Min.						Max.
RVP 15	All		50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150		96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	377.7415
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	67.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.0
Withdrawal Losses (lb):	106.8585
Annual Net Throughput (gal/yr):	37,961,424
Shell Clingage Factor (bb/1000 sqft):	0.0015

Average Organic Liquid Density (lb/gal): 5.60
 Tank Diameter (ft): 67.0
 Roof Fitting Losses (lb): 732.4614
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 77.95
 Average Wind Speed (mph): 0.0

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Losses (lb.)
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.0	0.0	0.0	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9	0.53	0.11	0.13	44.8216
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13	1.30	0.08	0.65	158.8018
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97	4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	15.0345

Total Losses (lb): 1217.06

Annual Emissions Report

Liquid Contents	Losses (lbs.):				
	Total Withdrawal	Roof-Fitting	Total Rim-Seal	Standing	Total
RVP 15	106.86	732.46	377.74	1110.20	1217.06
Total:	106.86	732.46	377.74	1110.20	1217.06

Appendix C: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 107
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 67.0
Volume(gallons): 1031884
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status	Quantity
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Avg.	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk	Vapor Pressures (psia)			Vapor Mol. Fract.	Liquid Mass	Mass Weight	Vapor Mol. Calculations	Basis for Vapor Pressure
			Min.	Max.	(deg F)	Temp. Avg.	Min.	Max.	Weight	Fract.	Fract.	Weight		
RVP 15	All		50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150			96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	377.7415
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph) ⁿ):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	67.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.0
Withdrawal Losses (lb):	104.56
Annual Net Throughput (gal/yr):	37,147,824
Shell Clingage Factor (bbl/1000 sqft):	0.0015

Average Organic Liquid Density (lb/gal): 5.6000
 Tank Diameter (ft): 67.0

Roof Fitting Losses (lb): 732.4614
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 77.95
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Roof Fitting Loss Factors				m	Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))			
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00		0.00	0.00	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00		0.38	40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9	0.53	0.11		0.13	44.8216
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13	1.30	0.08		0.65	158.8018
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20		1.20	0.94	58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10		1.00	6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47		0.02	0.97	4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60		0.00	0.00	15.0345

Total Losses (lb): 1214.77

Annual Emissions Report

Liquid Contents	Losses (lbs.):				Total
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	
RVP 15	104.57	732.46	377.74	1110.20	1214.77
Total:	104.57	732.46	377.74	1110.20	1214.77

Appendix D: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 108
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 67.0
Volume(gallons): 1054343
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status	Quantity
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Avg.	Vapor Pressures (psia) Min.	Liquid Max.	Mol. Weight	Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.									
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150			96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	377.7415
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.4
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	67.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.0
Withdrawal Losses (lb):	106.8442
Annual Net Throughput (gal/yr):	37956348

Shell Clingage Factor (bbl/1000 sqft): 0.0015
 Average Organic Liquid Density (lb/gal): 5.60
 Tank Diameter (ft): 67.0

Roof Fitting Losses (lb): 732.4614
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 77.95
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Losses (lb.)
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00		43.00	0.00	0.00	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00		0.38		40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	9	0.53	0.11		0.13		44.8216
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	13	1.30	0.08		0.65		158.8018
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20		0.94	0.94	58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10		1.00		6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02		0.97	0.97	4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00		0.00		15.0345

Total Losses (lb): 1217.05

Annual Emissions Report

Liquid Contents	Losses (lbs.):				
	Total Withdrawal	Roof-Fitting	Total Rim-Seal	Standing	Total
RVP 15	106.84	732.46	377.74	1110.20	1217.05
Total:	106.84	732.46	377.74	1110.20	1217.05

Appendix E: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 112
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc.
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 87.0
Volume(gallons): 2075798
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status	Quantity
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	12
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	16
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Month	Liquid			Bulk Temp. (deg F)	Vapor			Liquid Mol. Weight	Mass Fract.	Mass Fract.	Vapor Mol. Weight	Basis for Vapor Pressure Calculations
		Daily Liquid Surf. Temperatures (deg F)	Avg.	Min.		Max.	Vapor Pressures (psia)	Avg.					
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150			96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	490.5001
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph) ⁿ):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	87.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.0
Withdrawal Losses (lb):	161.9980
Annual Net Throughput (gal/yr):	74728728
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.60
Tank Diameter (ft):	87.0

Roof Fitting Losses (lb): 784.0485
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 83.44
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		KFb (lb-mole/(yr mph^n))	m	Losses (lb.)
		KFa (lb-mole/yr)				
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00		0.00	0.00	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00		0.38	40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	12	0.53	0.11		0.13	59.7621
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	16	1.30	0.08		0.65	195.4483
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20		1.20		58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10		1.00	6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47		0.02		4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60		0.00		15.0345
Total Losses (lb):		1436.55				

Annual Emissions Report

Liquid Contents	Losses (lbs.):				
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	Total
RVP 15	162.00	784.05	490.50	1274.55	1436.55
Total:	162.00	784.05	490.50	1274.55	1436.55

Appendix F: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 120
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 102.0
Volume(gallons): 2853291
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status	Quantity
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	16
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	17
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Liquid				Bulk Temp. (deg F)	Vapor Vapor Avg.	Vapor Pressures (psia) Min.	Liquid Pressures (psia) Max.	Mol. Weight	Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
	Daily Liquid Surf. Temperatures (deg F) Month	Avg.	Min.	Max.									
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150			96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	575.0691
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft yr (mph) ⁿ):	0.4000
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	102.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.00
Withdrawal Losses (lb):	189.9283
Annual Net Throughput (gal/yr):	102718476
Shell Clingage Factor (bb/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.60

Tank Diameter (ft): 102.0
 Roof Fitting Losses (lb): 816.1847
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 86.86
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Roof Fitting Loss Factors				m	Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))			
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00		0.00	0.00	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00		0.38	40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	16	0.53	0.11		0.13	79.6828
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	17	1.30		0.08	0.65	207.6638
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20		1.20	0.94	58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10		1.00	6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47		0.02	0.97	4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60		0.00	0.00	15.0345

Total Losses (lb): 1581.18

Annual Emissions Report

Liquid Contents	Losses (lbs.):				
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	Total
RVP 15	189.93	816.18	575.07	1391.25	1581.18
Total:	189.93	816.18	575.07	1391.25	1581.18

Appendix G: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 122
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T089-9291-00320

Tank Dimensions

Shell Height (ft): 46.0
Diameter (ft): 102.0
Liquid Height (ft): 42.0
Avg. Liquid Height (ft): 35.0
Volume (gallons): 2852910
Turnovers: 36.0
Net Throughput (gal/yr): 102704760

Paint Characteristics

Shell Color/Shade: Gray/Light
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 0.00
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Liquid Daily Liquid Surf. Temperatures (deg F)				Bulk Temp. (deg F)	Vapor Pressures (psia)			Mol. Weight	Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
	Month	Avg.	Min.	Max.		Avg.	Min.	Max.					
Distillate fuel oil no. 2	All	53.24	46.80	59.68	50.33	0.0052	0.0041	0.0064	130.0			188.00	Option 3: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb): 220.6431
 Vapor Space Volume (cu ft): 98566.10
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.050378
 Vented Vapor Saturation Factor: 0.996705

Tank Vapor Space Volume
 Vapor Space Volume (cu ft): 98566.10
 Tank Diameter (ft): 102.0
 Vapor Space Outage (ft): 12.06
 Tank Shell Height (ft): 46.0
 Average Liquid Height (ft): 35.0
 Roof Outage (ft): 1.06

Roof Outage (Cone Roof)
 Roof Outage (ft): 1.06
 Roof Height (ft): 0.000
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 51.0

Vapor Density

Vapor Density (lb/cu ft):	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Daily Avg. Liquid Surface Temp.(deg. R):	512.91
Daily Average Ambient Temp. (deg. R):	508.87
Ideal Gas Constant R (psia cuft / (lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	510.00
Tank Paint Solar Absorptance (Shell):	0.36
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.050378
Daily Vapor Temperature Range (deg.R):	25.76
Daily Vapor Pressure Range (psia):	0.002267
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004147
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.006414
Daily Avg. Liquid Surface Temp. (deg R):	512.91
Daily Min. Liquid Surface Temp. (deg R):	506.47
Daily Max. Liquid Surface Temp. (deg R):	519.35
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations	
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.996705
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Vapor Space Outage (ft):	12.06

Working Losses (lb):	1506.9165
Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.005171
Annual Net Throughput (gal/yr):	102704760
Turnover Factor:	0.9166
Maximum Liquid Volume (cuft):	343194
Maximum Liquid Height (ft):	42.0
Tank Diameter (ft):	102.0
Working Loss Product Factor:	1.00
 Total Losses (lb):	 1727.56

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	220.64	1506.92	1727.56
Total:	220.64	1506.92	1727.56

Appendix H: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 123
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 100.0
Volume(gallons): 2818840
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status

Quantity

Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.		1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	16	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed		17
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.		1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask		1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed		1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Daily Liquid Surf. Temperatures (deg F)			Liquid Max.	Bulk Temp. (deg F)	Vapor Pressures (psia)			Mol. Weight	Mass Fract.	Vapor		Basis for Vapor Pressure Calculations
	Month	Avg.	Min.			Avg.	Min.	Max.			Mass Fract.	Mol. Weight	
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150	96.00	Option 4: RVP=15.00, ASTM Slope=3.0		

Annual Emission Calculations

Rim Seal Losses (lb):	563.7933
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	100.0
Vapor Molecular Weight (lb/lb-mole):	60.15
Product Factor:	1.0
Withdrawal Losses (lb):	191.3878
Annual Net Throughput (gal/yr):	101478240
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.6
Tank Diameter (ft):	100.0

Roof Fitting Losses (lb): 816.1847
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.0
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 86.8600
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors			m	Losses (lb.)
		KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))			
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00	0.00		0.00	404.0518
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38		40.4052
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	16	0.53	0.11	0.13		79.6828
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	17	1.30	0.08	0.65		207.6638
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	0.94	58.2586
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00		6.6716
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97	0.97	4.4164
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00		15.0345

Total Losses (lb): 1571.37

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total		Total
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	
RVP 15	191.39	816.18	563.79	1379.98	1571.37
Total:	191.39	816.18	563.79	1379.98	1571.37

Appendix I: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 130
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 120.0
Volume(gallons): 3915368
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status

Quantity

Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.		1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed		19
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.		1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask		1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed		1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Liquid Mol. Weight	Mass Fract.	Mass Fract.	Vapor Mol. Weight	Basis for Vapor Pressure Calculations
	Month	Avg.	Min.		Max.	Avg.	Min.					
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150		96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	676.5519
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	120.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0
Withdrawal Losses (lb):	221.5313
Annual Net Throughput (gal/yr):	140953248
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.60
Tank Diameter (ft):	120.0

Roof Fitting Losses (lb): 880.4571
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 93.70
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Roof Fitting Loss Factors					Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Losses (lb.)	
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00	0.00	0.00	404.0518	
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	40.4052	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	0.53	0.11	0.13	119.5242	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	19	1.30	0.08	0.65	232.0949	
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	58.2586	
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	6.6716	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97	4.4164	
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	15.0345	

Total Losses (lb): 1778.54

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total		
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	Total
RVP 15	221.53	880.46	676.55	1557.01	1778.54
Total:	221.53	880.46	676.55	1557.01	1778.54

Appendix J: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 130
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 120.0
Volume(gallons): 3915368
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status

Quantity

Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.		1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed		19
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.		1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask		1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed		1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Liquid Mol. Weight	Mass Fract.	Mass Fract.	Vapor Mol. Weight	Basis for Vapor Pressure Calculations
	Month	Avg.	Min.		Max.	Avg.	Min.					
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150		96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	676.5519
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	120.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0
Withdrawal Losses (lb):	221.5313
Annual Net Throughput (gal/yr):	140953248
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.60
Tank Diameter (ft):	120.0

Roof Fitting Losses (lb): 880.4571
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 93.70
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Roof Fitting Loss Factors					Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Losses (lb.)	
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00	0.00	0.00	404.0518	
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	40.4052	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	0.53	0.11	0.13	119.5242	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	19	1.30	0.08	0.65	232.0949	
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	58.2586	
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	6.6716	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97	4.4164	
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	15.0345	
Total Losses (lb):					1778.54	

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total		
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	Total
RVP 15	221.53	880.46	676.55	1557.01	1778.54
Total:	221.53	880.46	676.55	1557.01	1778.54

Appendix K: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 132
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Domed External Floating Roof
Description: T089-9291-00320

Tank Dimensions

Diameter (ft): 120.0
Volume(gallons): 3915368
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good

Roof Characteristics

Roof Type: Pontoon
Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Roof Fitting/Status

Quantity

Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.		1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed		19
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.		1
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask		1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed		1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Liquid Mol. Weight	Mass Fract.	Mass Fract.	Vapor Mol. Weight	Basis for Vapor Pressure Calculations
	Month	Avg.	Min.		Max.	Avg.	Min.					
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150		96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb):	676.5519
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Average Wind Speed (mph):	0.0
Seal-related Wind Speed Exponent:	1.00
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	120.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0
Withdrawal Losses (lb):	221.5313
Annual Net Throughput (gal/yr):	140953248
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.60
Tank Diameter (ft):	120.0

Roof Fitting Losses (lb): 880.4571
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Roof Fitting Loss Fact.(lb-mole/yr): 93.70
 Average Wind Speed (mph): 0.0

Roof Fitting/Status	Roof Fitting Loss Factors					Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Losses (lb.)	
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1	43.00	0.00	0.00	404.0518	
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	40.4052	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	0.53	0.11	0.13	119.5242	
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	19	1.30	0.08	0.65	232.0949	
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	58.2586	
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	6.6716	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97	4.4164	
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	15.0345	
Total Losses (lb):					1778.54	

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total		
	Withdrawal	Roof-Fitting	Rim-Seal	Standing	Total
RVP 15	221.53	880.46	676.55	1557.01	1778.54
Total:	221.53	880.46	676.55	1557.01	1778.54

Appendix L: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 133
City: East Chicago
State: IN
Company: TransMontaigne Terminaling, Inc
Type of Tank: Internal Floating Roof
Description: T 089-9291-00320

Tank Dimensions

Diameter (ft): 120.0
Volume(gallons): 3242652
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Vapor-mounted
Secondary Seal: None
Deck Type: Bolted

Deck Characteristics

Deck Fitting Category: Detail
Construction: Cont. Sheet: 5 Ft Wide

Deck Seam Len. (ft): 2262

Deck Fitting/Status	Quantity
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
RVP 15	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150			96.00	Option 4: RVP=15.00, ASTM Slope=3.0

Annual Emission Calculations

Rim Seal Losses (lb): 7554.8296
 Seal Factor A (lb-mole/ft-yr): 6.70
 Seal Factor B (lb-mole/ft yr (mph)ⁿ): 0.20
 Value of Vapor Pressure Function: 0.1562
 Vapor Pressure at Daily Average Liquid Surface Temperature (psia): 6.871165
 Tank Diameter (ft): 120.0
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00

Withdrawal Losses (lb): 195.2417
 Number of Columns: 7.0
 Effective Column Diameter (ft): 1.10
 Annual Net Throughput (gal/yr): 116735472
 Shell Clingage Factor: 0.0015
 Average Organic Liquid Density (lb/gal): 5.60
 Tank Diameter (ft): 120.0

Deck Fitting Losses (lb): 255.5863
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.00
 Tot. Deck Fitting Loss Fact. (lb-mole/yr): 27.20

Deck Seam Losses (lb): 3788.7799
 Deck Seam Length (ft): 2262
 Deck Seam Loss per Unit Length
 Factor (lb-mole/ft-yr): 0.14
 Deck Seam Length Factor (ft/sqft): 0.20
 Tank Diameter (ft): 120.0
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.00

Deck Fitting/Status	Deck Fitting Loss Factors						Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00		6.6716	
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask	1	0.47	0.02	0.97		4.4164	
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	0.53	0.11	0.13		119.5242	
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38		40.4052	
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94		58.2586	
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00		26.3104	

Total Losses (lb): 11794.44

Annual Emissions Report

Liquid Contents	Losses (lbs.):					
	Total Withdrawal	Rim-Seal	Total Deck-Fitting	Deck Seam	Standing	Total
RVP 15	195.24	7554.83	255.59	3788.78	11599.20	11794.44
Total:	195.24	7554.83	255.59	3788.78	11599.20	11794.4

Appendix M: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 134
City: East Chicago
State: IN
Company: TransMontaigne Terminaling, Inc
Type of Tank: Internal Floating Roof
Description: IFR Tank 134

Tank Dimensions

Diameter (ft): 137.0
Volume(gallons): 5040000
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted
Deck Type: Bolted

Deck Characteristics

Deck Fitting Category: Detail
Construction: Cont. Sheet: 5 Ft Wide
Deck Seam Len. (ft): 2948

Deck Fitting/Status	Quantity
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1
Stub Drain (1-in. Diameter)/	28
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Roof Leg or Hanger Well/Adjustable	60

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Liquid				Vapor			Mol. Weight	Mass Fract.	Mol. Fract.	Basis for Vapor Pressure Calculations
	Daily Liquid Surf. Temperatures (deg F) Month Avg.	Bulk Temp. (deg F) Min.	Bulk Temp. (deg F) Max.	Vapor Pressures (psia) Avg.	Min.	Max.					
RVP 15 Slope=3.0 (worst case)	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150	96.00	Option 4: RVP=15.00, ASTM

Annual Emission Calculations

Rim Seal Losses (lb):	772.3968
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph) ⁿ):	0.40
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	137.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0

Withdrawal Losses (lb): 265.8219
 Number of Columns: 8.0
 Effective Column Diameter (ft): 1.10
 Annual Net Throughput (gal/yr): 181440000
 Shell Clingage Factor: 0.0015
 Average Organic Liquid Density (lb/gal): 5.6000
 Tank Diameter (ft): 137.0

Deck Fitting Losses (lb): 7475.8986
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Deck Fitting Loss Fact. (lb-mole/yr): 795.60

Deck Seam Losses (lb): 4937.8087
 Deck Seam Length (ft): 2948
 Deck Seam Loss per Unit Length
 Factor (lb-mole/ft-yr): 0.1400
 Deck Seam Length Factor (ft/sqft): 0.2000
 Tank Diameter (ft): 137.0
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.0

Deck Fitting/Status	Deck Fitting Loss Factors			m	Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))		
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20	0.94	116.5173
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8	25.00	0.00	0.00	1879.3109
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3	1.60	0.00	0.00	45.1035
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	26.3104
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	526.2070
Stub Drain (1-in. Diameter)/	28	1.20	0.00	0.00	315.7242
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	112.7587
Roof Leg or Hanger Well/Adjustable	60	7.90	0.00	0.00	4453.9667

Total Losses (lb): 13451.93

Annual Emissions Report

Liquid Contents	Losses (lbs.):					
	Total Withdrawal	Total Rim-Seal	Deck-Fitting	Deck Seam	Standing	Total
RVP 15	265.82	772.40	7475.90	4937.81	13186.10	13451.93
Total:	265.82	772.40	7475.90	4937.81	13186.10	13451.93

Appendix N: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 135
City: East Chicago
State: IN
Company: TransMontaigne Terminaling, Inc
Type of Tank: Internal Floating Roof
Description: IFR Tank 135

Tank Dimensions

Diameter (ft): 137.0
Volume(gallons): 5040000
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted
Deck Type: Bolted

Deck Characteristics

Deck Fitting Category: Detail
Construction: Cont. Sheet: 5 Ft Wide
Deck Seam Len. (ft): 2948

Deck Fitting/Status	Quantity
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1
Stub Drain (1-in. Diameter)/	28
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Roof Leg or Hanger Well/Adjustable	60

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Liquid				Vapor			Mol. Weight	Mass Fract.	Mol. Fract.	Basis for Vapor Pressure Calculations
	Daily Liquid Surf. Temperatures (deg F) Month Avg.	Bulk Temp. (deg F)	Min. Temp.	Max. Temp.	Vapor Pressures (psia) Avg.	Min.	Max.				
RVP 15 Slope=3.0 (worst case)	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150	96.00	Option 4: RVP=15.00, ASTM

Annual Emission Calculations

Rim Seal Losses (lb):	772.3968
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph)^n):	0.40
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	137.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0

Withdrawal Losses (lb): 265.8219
 Number of Columns: 8.0
 Effective Column Diameter (ft): 1.10
 Annual Net Throughput (gal/yr): 181440000
 Shell Clingage Factor: 0.0015
 Average Organic Liquid Density (lb/gal): 5.6000
 Tank Diameter (ft): 137.0

Deck Fitting Losses (lb): 7475.8986
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Deck Fitting Loss Fact. (lb-mole/yr): 795.60

Deck Seam Losses (lb): 4937.8087
 Deck Seam Length (ft): 2948
 Deck Seam Loss per Unit Length
 Factor (lb-mole/ft-yr): 0.1400
 Deck Seam Length Factor (ft/sqft): 0.2000
 Tank Diameter (ft): 137.0
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.0

Deck Fitting/Status	Deck Fitting Loss Factors			m	Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))		
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20	0.94	116.5173
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8	25.00	0.00	0.00	1879.3109
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3	1.60	0.00	0.00	45.1035
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	26.3104
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	526.2070
Stub Drain (1-in. Diameter)/	28	1.20	0.00	0.00	315.7242
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	112.7587
Roof Leg or Hanger Well/Adjustable	60	7.90	0.00	0.00	4453.9667

Total Losses (lb): 13451.93

Annual Emissions Report

Liquid Contents	Losses (lbs.):					
	Total Withdrawal	Total Rim-Seal	Deck-Fitting	Deck Seam	Standing	Total
RVP 15	265.82	772.40	7475.90	4937.81	13186.10	13451.93
Total:	265.82	772.40	7475.90	4937.81	13186.10	13451.93

Appendix O: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 140
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T 089-9291-00320

Tank Dimensions

Shell Height (ft): 40.0
Diameter (ft): 120.0
Liquid Height (ft): 36.0
Avg. Liquid Height (ft): 18.0
Volume (gallons): 3128202
Turnovers: 36.0
Net Throughput (gal/yr): 112615272

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.75
Radius (ft) (Dome Roof): 0.00

Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Vapor Pressures (psia)			Mol. Weight	Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Distillate fuel oil no. 2	All	50.84	45.97	55.71	49.22	0.0048	0.0040	0.0056	130.000			188.00	Option 3: A=12.1010, B=8907.0

Annual Emission Calculations

Standing Losses (lb): 412.5188
 Vapor Space Volume (cu ft): 262951.3
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.038227
 Vented Vapor Saturation Factor: 0.994161

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 262951.3
 Tank Diameter (ft): 120.0
 Vapor Space Outage (ft): 23.25
 Tank Shell Height (ft): 40.0
 Average Liquid Height (ft): 18.0
 Roof Outage (ft): 1.25

Roof Outage (Cone Roof)

Roof Outage (ft): 1.25
 Roof Height (ft): 3.750
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 60.0

Vapor Density

Vapor Density (lb/cu ft):	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Daily Avg. Liquid Surface Temp.(deg. R):	510.51
Daily Average Ambient Temp. (deg. R):	508.87
Ideal Gas Constant R (psia cuft / (lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	508.89
Tank Paint Solar Absorptance (Shell):	0.17
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor

Vapor Space Expansion Factor:	0.038227
Daily Vapor Temperature Range (deg.R):	19.46
Daily Vapor Pressure Range (psia):	0.001591
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004029
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.005620
Daily Avg. Liquid Surface Temp. (deg R):	510.51
Daily Min. Liquid Surface Temp. (deg R):	505.64
Daily Max. Liquid Surface Temp. (deg R):	515.38
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations

Vented Vapor Saturation Factor

Vented Vapor Saturation Factor:	0.994161
Vapor Pressure at Daily Average Liquid	

Surface Temperature (psia): 0.004766
 Vapor Space Outage (ft): 23.25

Working Losses (lb): 1624.8990
 Vapor Molecular Weight (lb/lb-mole): 130.000000
 Vapor Pressure at Daily Average Liquid
 Surface Temperature (psia): 0.004766
 Annual Net Throughput (gal/yr): 112615272
 Turnover Factor: 0.9781
 Maximum Liquid Volume (cuft): 407150
 Maximum Liquid Height (ft): 36.0
 Tank Diameter (ft): 120.0
 Working Loss Product Factor: 1.00

Total Losses (lb): 2037.42

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	412.52	1624.90	2037.42
Total:	412.52	1624.90	2037.42

Appendix P: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 141
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T 089-9291-00320

Tank Dimensions

Shell Height (ft): 40.0
Diameter (ft): 120.0
Liquid Height (ft): 36.0
Avg. Liquid Height (ft): 18.0
Volume (gallons): 3128202
Turnovers: 36.0
Net Throughput (gal/yr): 112615272

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.75
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Avg.	Vapor Pressures (psia)		Mol. Weight	Mass Fract.	Vapor Mass Fract.		Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.			Min.	Max.			Mol. Weight	Mass Fract.	
Distillate fuel oil no. 2	All	50.84	45.97	55.71	49.22	0.0048	0.0040	0.0056	130.000		188.00	Option 3: A=12.1010, B=8907.0	

Annual Emission Calculations

Standing Losses (lb): 412.5188
 Vapor Space Volume (cu ft): 262951.3
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.038227
 Vented Vapor Saturation Factor: 0.994161

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 262951.3
 Tank Diameter (ft): 120.0
 Vapor Space Outage (ft): 23.25
 Tank Shell Height (ft): 40.0
 Average Liquid Height (ft): 18.0
 Roof Outage (ft): 1.25

Roof Outage (Cone Roof)

Roof Outage (ft): 1.25
 Roof Height (ft): 3.750
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 60.0

Vapor Density

Vapor Density (lb/cu ft): 0.0001

Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Daily Avg. Liquid Surface Temp.(deg. R):	510.51
Daily Average Ambient Temp. (deg. R):	508.87
Ideal Gas Constant R (psia cuft /((lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	508.89
Tank Paint Solar Absorptance (Shell):	0.17
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.038227
Daily Vapor Temperature Range (deg.R):	19.46
Daily Vapor Pressure Range (psia):	0.001591
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004029
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.005620
Daily Avg. Liquid Surface Temp. (deg R):	510.51
Daily Min. Liquid Surface Temp. (deg R):	505.64
Daily Max. Liquid Surface Temp. (deg R):	515.38
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations	
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.994161
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Space Outage (ft):	23.25

Working Losses (lb):	1624.8990
Vapor Molecular Weight (lb/lb-mole):	130.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Annual Net Throughput (gal/yr):	112615272
Turnover Factor:	0.9781
Maximum Liquid Volume (cuft):	407150
Maximum Liquid Height (ft):	36.0
Tank Diameter (ft):	120.0
Working Loss Product Factor:	1.00
 Total Losses (lb):	 2037.42

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	412.52	1624.90	2037.42
Total:	412.52	1624.90	2037.42

Appendix Q: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 142
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T 089-9291-00320

Tank Dimensions

Shell Height (ft): 40.0
Diameter (ft): 120.0
Liquid Height (ft): 36.0
Avg. Liquid Height (ft): 18.0
Volume (gallons): 3128202
Turnovers: 36.0
Net Throughput (gal/yr): 112615272

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.75
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Avg.	Vapor Pressures (psia)		Mol. Weight	Mass Fract.	Vapor Mass Fract.		Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.			Min.	Max.			Fract.	Fract.		
Distillate fuel oil no. 2	All	50.84	45.97	55.71	49.22	0.0048	0.0040	0.0056	130.000			188.00	Option 3: A=12.1010, B=8907.0	

Annual Emission Calculations

Standing Losses (lb): 412.5188
 Vapor Space Volume (cu ft): 262951.3
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.038227
 Vented Vapor Saturation Factor: 0.994161

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 262951.3
 Tank Diameter (ft): 120.0
 Vapor Space Outage (ft): 23.25
 Tank Shell Height (ft): 40.0
 Average Liquid Height (ft): 18.0
 Roof Outage (ft): 1.25

Roof Outage (Cone Roof)

Roof Outage (ft): 1.25
 Roof Height (ft): 3.750
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 60.0

Vapor Density

Vapor Density (lb/cu ft): 0.0001

Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Daily Avg. Liquid Surface Temp.(deg. R):	510.51
Daily Average Ambient Temp. (deg. R):	508.87
Ideal Gas Constant R (psia cuft /((lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	508.89
Tank Paint Solar Absorptance (Shell):	0.17
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.038227
Daily Vapor Temperature Range (deg.R):	19.46
Daily Vapor Pressure Range (psia):	0.001591
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004029
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.005620
Daily Avg. Liquid Surface Temp. (deg R):	510.51
Daily Min. Liquid Surface Temp. (deg R):	505.64
Daily Max. Liquid Surface Temp. (deg R):	515.38
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations	
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.994161
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Space Outage (ft):	23.25

Working Losses (lb):	1624.8990
Vapor Molecular Weight (lb/lb-mole):	130.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Annual Net Throughput (gal/yr):	112615272
Turnover Factor:	0.9781
Maximum Liquid Volume (cuft):	407150
Maximum Liquid Height (ft):	36.0
Tank Diameter (ft):	120.0
Working Loss Product Factor:	1.00
 Total Losses (lb):	 2037.42

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	412.52	1624.90	2037.42
Total:	412.52	1624.90	2037.42

Appendix R: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 150
City: East Chicago
State: IN
Company: TransMontaigne Terminaling Inc
Type of Tank: Vertical Fixed Roof
Description: T 089-9291-00320

Tank Dimensions

Shell Height (ft): 40.0
Diameter (ft): 120.0
Liquid Height (ft): 36.0
Avg. Liquid Height (ft): 18.0
Volume (gallons): 3128202
Turnovers: 36.0
Net Throughput (gal/yr): 112615272

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.75
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): 0.00
 Pressure Setting (psig): 0.00

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Avg.	Vapor Pressures (psia)		Mol. Weight	Mass Fract.	Vapor Mass Fract.		Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.			Min.	Max.			Mol. Weight	Mass Fract.	
Distillate fuel oil no. 2	All	50.84	45.97	55.71	49.22	0.0048	0.0040	0.0056	130.000		188.00	Option 3: A=12.1010, B=8907.0	

Annual Emission Calculations

Standing Losses (lb): 412.5188
 Vapor Space Volume (cu ft): 262951.3
 Vapor Density (lb/cu ft): 0.0001
 Vapor Space Expansion Factor: 0.038227
 Vented Vapor Saturation Factor: 0.994161

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 262951.3
 Tank Diameter (ft): 120.0
 Vapor Space Outage (ft): 23.25
 Tank Shell Height (ft): 40.0
 Average Liquid Height (ft): 18.0
 Roof Outage (ft): 1.25

Roof Outage (Cone Roof)

Roof Outage (ft): 1.25
 Roof Height (ft): 3.750
 Roof Slope (ft/ft): 0.06250
 Shell Radius (ft): 60.0

Vapor Density

Vapor Density (lb/cu ft): 0.0001

Vapor Molecular Weight (lb/lb-mole):	130.0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Daily Avg. Liquid Surface Temp.(deg. R):	510.51
Daily Average Ambient Temp. (deg. R):	508.87
Ideal Gas Constant R (psia cuft /((lb-mole-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	508.89
Tank Paint Solar Absorptance (Shell):	0.17
Tank Paint Solar Absorptance (Roof):	0.17
Daily Total Solar Insolation Factor (Btu/sqft! day):	1215.00

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.038227
Daily Vapor Temperature Range (deg.R):	19.46
Daily Vapor Pressure Range (psia):	0.001591
Breather Vent Press. Setting Range(psia):	0.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.004029
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.005620
Daily Avg. Liquid Surface Temp. (deg R):	510.51
Daily Min. Liquid Surface Temp. (deg R):	505.64
Daily Max. Liquid Surface Temp. (deg R):	515.38
Daily Ambient Temp. Range (deg.R):	19.00

Annual Emission Calculations	
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.994161
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Vapor Space Outage (ft):	23.25

Working Losses (lb):	1624.8990
Vapor Molecular Weight (lb/lb-mole):	130.00
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.004766
Annual Net Throughput (gal/yr):	112615272
Turnover Factor:	0.9781
Maximum Liquid Volume (cuft):	407150
Maximum Liquid Height (ft):	36.0
Tank Diameter (ft):	120.0
Working Loss Product Factor:	1.00
 Total Losses (lb):	 2037.42

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Working	
Distillate fuel oil no. 2	412.52	1624.90	2037.42
Total:	412.52	1624.90	2037.42

Appendix S: VOC Emissions Calculation

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, Indiana 46312
County: Lake
Permit: T 089-9291-00320
Permit Reviewer: Manoj P. Patel
Date: August 9, 1998

Identification

Identification No.: Tank 151
City: East Chicago
State: IN
Company: TransMontaigne Terminaling, Inc
Type of Tank: Internal Floating Roof
Description: IFR Tank 135

Tank Dimensions

Diameter (ft): 137.0
Volume(gallons): 5040000
Turnovers: 36.0

Paint Characteristics

Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Paint Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted
Deck Type: Bolted

Deck Characteristics

Deck Fitting Category: Detail
Construction: Cont. Sheet: 5 Ft Wide
Deck Seam Len. (ft): 2948

Deck Fitting/Status	Quantity
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1
Stub Drain (1-in. Diameter)/	28
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Roof Leg or Hanger Well/Adjustable	60

Meteorological Data Used in Emission Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.7 psia)

Mixture/Component	Liquid				Vapor			Mol. Weight	Mass Fract.	Mol. Fract.	Basis for Vapor Pressure Calculations
	Daily Liquid Surf. Temperatures (deg F) Month Avg.	Bulk Temp. (deg F)	Min. Temp.	Max. Temp.	Vapor Pressures (psia) Avg.	Min.	Max.				
RVP 15 Slope=3.0 (worst case)	All	50.84	45.97	55.71	49.22	6.8712	N/A	N/A	60.150	96.00	Option 4: RVP=15.00, ASTM

Annual Emission Calculations

Rim Seal Losses (lb):	772.3968
Seal Factor A (lb-mole/ft-yr):	0.60
Seal Factor B (lb-mole/ft yr (mph) ⁿ):	0.40
Value of Vapor Pressure Function:	0.1562
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.871165
Tank Diameter (ft):	137.0
Vapor Molecular Weight (lb/lb-mole):	60.150
Product Factor:	1.0

Withdrawal Losses (lb): 265.8219
 Number of Columns: 8.0
 Effective Column Diameter (ft): 1.10
 Annual Net Throughput (gal/yr): 181440000
 Shell Clingage Factor: 0.0015
 Average Organic Liquid Density (lb/gal): 5.6000
 Tank Diameter (ft): 137.0

Deck Fitting Losses (lb): 7475.8986
 Value of Vapor Pressure Function: 0.1562
 Vapor Molecular Weight (lb/lb-mole): 60.15
 Product Factor: 1.0
 Tot. Deck Fitting Loss Fact. (lb-mole/yr): 795.60

Deck Seam Losses (lb): 4937.8087
 Deck Seam Length (ft): 2948
 Deck Seam Loss per Unit Length
 Factor (lb-mole/ft-yr): 0.1400
 Deck Seam Length Factor (ft/sqft): 0.2000
 Tank Diameter (ft): 137.0
 Vapor Molecular Weight (lb/lb-mole): 60.150
 Product Factor: 1.0

Deck Fitting/Status	Deck Fitting Loss Factors			m	Losses (lb.)
	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))		
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20	0.94	116.5173
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	8	25.00	0.00	0.00	1879.3109
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	3	1.60	0.00	0.00	45.1035
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	26.3104
Ladder Well (36-in Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	526.2070
Stub Drain (1-in. Diameter)/	28	1.20	0.00	0.00	315.7242
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	112.7587
Roof Leg or Hanger Well/Adjustable	60	7.90	0.00	0.00	4453.9667

Total Losses (lb): 13451.93

Annual Emissions Report

Liquid Contents	Losses (lbs.):					
	Total Withdrawal	Total Rim-Seal	Deck-Fitting	Deck Seam	Standing	Total
RVP 15	265.82	772.40	7475.90	4937.81	13186.10	13451.93
Total:	265.82	772.40	7475.90	4937.81	13186.10	13451.93

Appendix U: HAP Emission Calculations

Company Name: TransMontaigne Terminaling, Inc.
Plant Location: 3821 Indianapolis Boulevard, East Chicago, IN 46312
Permit No.: T089-9291-00320
County: Lake
Permit Reviewer: Manoj P. Patel
Date: August 12, 1998

	Gasoline	Distillate
Potential VOC emissions	32.6	5.5

HAP	HAP percentage by weight for Gasoline	HAP percentage by weight Distillate	HAP Emissions from Gasoline	HAP Emissions from Distillate
Hexane	1.60%	0	0.5216	NA
Benzene	0.90%	0.000%	0.2934	0.0000
Toluene	1.30%	0.00%	0.4238	0.00
2,2,4 Trimethylpentane	0.80%	0.00%	0.2608	NA
Xylene	0.50%	0.00%	0.163	0.00
Ethyl Benzene	0.10%	0.00%	0.0326	0.000
MTBE	0.00%	0	0	NA
Phenol	NA	0.00%	NA	0.00
Naphthalene	NA	0.00%	NA	0.00
Cumene	NA	0.00%	NA	0.00
Biphenyl	NA	0.00%	NA	0.00
Total HAPs (tons/year)			1.70	0.00

METHODOLOGY

HAPS emission rate (tons/yr) = VOC Potential emissions (tons/year) * Weight % HAP
Worst case gasoline (oxygenated) with MTBE is considered in the calculation.