



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

To: Interested Parties

Date: August 17, 2016

From: Matthew Stuckey, Chief  
Permits Branch  
Office of Air Quality

Source Name: Buckeye Terminals, LLC

Permit Level: Title V Administrative Amendment

Permit Number: 089-37345-00320

Source Location: 400 East Columbus Drive  
East Chicago, Indiana

Type of Action Taken: Changes that are administrative in nature

## Notice of Decision: Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>  
To view the document, select Search option 3, then enter permit 37345.

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

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

*(continues on next page)*

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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



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Mac Meade
Buckeye Terminals, LLC
5521 W Lincoln Hwy
Crown Point IN 46307

August 17, 2016

Re: 089-37345-00320
Administrative Amendment to
Part 70 Renewal 089-33112-00320

Dear Mr. Mac Meade:

Buckeye Terminals, LLC was issued a Part 70 Permit Renewal No. 089-33112-00320 on February 20, 2014 for a stationary pipeline breakout tank farm and bulk liquid fuel storage and transfer located at 400 East Columbus Drive, East Chicago, Indiana. On June 27, 2016, the Office of Air Quality (OAQ) received an application from the source requesting to revise the existing propylene storage and loading operations to also store and load a butane/butylene blend, referred to as alkyl feed. Pursuant to 326 IAC 2-7-11(a)(7), this change to the permit is considered an administrative amendment because the permit is amended to change the descriptive information where the revision will not trigger a new applicable requirement or violate a permit term.

Proposed Changes:

Pursuant to 326 IAC 2-7-11(a), the permit is hereby administratively amended as follows with the deleted language as strikeouts and new language bolded:

A.2 Emission Units and Pollution Control Equipment Summary
[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

\*\*\*\*\*
PROPYLENE OR BUTANE/BUTYLENE BLEND STORAGE AND LOADING FACILITY
\*\*\*\*\*

- (f) Twelve (12) stand propylene or butane/butylene blend rail loading rack, using a portable vapor control unit (PVCU), or equivalent, to control point source VOC emissions.
(g) Fugitive VOC emissions from propylene or butane/butylene blend storage, loading and maintenance operations.
\*\*\*\*\*

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: PROPYLENE OR BUTANE/BUTYLENE BLEND STORAGE AND LOADING FACILITY
\*\*\*\*\*

- (f) Twelve (12) stand propylene or butane/butylene blend rail loading rack. A portable vapor control unit (PVCU), or equivalent, will be used to control point source VOC emissions.
(g) Fugitive VOC emissions from propylene or butane/butylene blend storage, loading and maintenance operations.
\*\*\*\*\*

\*\*\*\*\*



D.5.3 Specific VOC Reduction Requirements for Lake/Porter/Clark/Floyd Counties [326 IAC 8-7-3]

Pursuant to 326 IAC 8-7-3, the Permittee shall achieve an overall VOC reduction from the propylene **or butane/butylene blend** loading rack of at least ninety-eight percent (98%) by the documented reduction in use of VOC containing materials or install an add-on control system that achieves an overall control efficiency of ninety-eight percent (98%).

\*\*\*\*\*  
**Compliance Determination Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

D.5.5 Vapor Combustion Unit (VCU) Operation [326 IAC 2-7-6(1),(6)]

- (a) A Portable Vapor Combustion Unit (PVCU) for VOC control shall be in operation at all times, when propylene **or butane/butylene blend** is being loaded or unloaded from the spheres or railcars. Line purging events are controlled with a PVCU or candlestick flare.
- (b) Pursuant to 326 IAC 8-7-9(1-2), the control system for the propylene **or butane/butylene blend** loading rack shall be operated and maintained according to the manufacturer's recommendations but may be modified based on the results of the initial or subsequent compliance test or upon the written request of IDEM, OAQ, and the operating and maintenance procedures shall be followed upon startup.

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- \*\*\*\*\*
- (e) Pursuant to 326 IAC 8-7-9(4) and in order to demonstrate compliance with Condition D.5.3, the Permittee shall test the control system for the propylene **or butane/butylene blend** rail loading rack according to the following schedule and under the following situations:
    - (1) The propylene **or butane/butylene blend** rail loading rack testing shall be repeated every two (2) years after the date of the initial test.
- \*\*\*\*\*

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

D.5.8 Vapor Combustion Unit Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

- (a) The Permittee shall install and maintain a monitor to detect the presence of a pilot flame. The presence of a pilot flame shall be monitored using a heat-sensing device at all times when the vapors are being vented to the PVCU. The monitor shall be equipped with a computer system which will not allow for the propylene **or butane/butylene blend** loading or unloading operations from the spheres or railcars, and line purging events when the presence of a flame is not detected during periods when propylene **or butane/butylene blend** vapors are being vented to the PVCU.
- (b) Pursuant to 326 IAC 8-7-10(a)(1), the Permittee shall install and utilize a temperature monitoring device capable of continuously recording the temperature of the gas stream in the combustion zone of the incinerator shall be used for controlling VOC emissions from the propylene **or butane/butylene blend** rail loading rack. The temperature monitoring device shall have an accuracy of one percent (1%) of the temperature being measured in degrees centigrade or plus or minus five-tenths degree Centigrade (+/- 0.5 °C), whichever is greater.

\*\*\*\*\*

D.5.9 Monthly Visible Checks for Liquid Leaks [40 CFR Part 64]

- (a) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling propylene **or butane/butylene blend** shall be inspected during the loading and unloading of spheres and railcars and line purging events for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

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

D.5.10 Record Keeping Requirements

- (c) Pursuant to 326 IAC 8-7-9(3) and to document the compliance status with Condition D.5.5(b), the Permittee shall maintain a copy of the operating and maintenance procedures for the vapor control unit used to control VOC emissions from the propylene **or butane/butylene blend** loading rack in a convenient location at the source property and as close to the control system as possible for the reference by plant personnel and IDEM, OAQ, inspectors.
- (d) Pursuant to 326 IAC 8-7-10(b) and to document the compliance status with Condition D.5.8(b), the Permittee shall maintain the following records for the vapor control unit used to control VOC emissions from the propylene **or butane/butylene blend** loading rack:

\*\*\*\*\*  
Please find attached the entire Part 70 Operating Permit as amended.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Amal Agharkar of my staff, at 317-232-8422 or 1-800-451-6027, and ask for extension 2-8422.

Sincerely,



Josiah K. Balogun, Section Chief  
Permits Branch  
Office of Air Quality

Attachment(s): Updated Permit, and Appendix A

JB/AA

cc: File - Lake County  
Lake County Health Department  
U.S. EPA, Region 5  
Compliance and Enforcement Branch  
Billing, Licensing and Training Section  
Northwest Regional Office



Indiana Department of Environmental Management  
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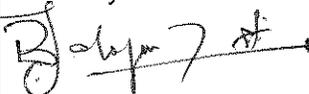
**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**Buckeye Terminals, LLC  
400 East Columbus Drive  
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.

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 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.: 089-33112-00320	
Issued by/Original Signed by:  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: February 20, 2014  Expiration Date: February 20, 2019
Administrative Amendment No.: 089-37345-00320	
Issued by:  Josiah K. Balogun, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 17, 2016  Expiration Date: February 20, 2019

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**Affidavit of Construction ..... 82**

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Attachment B: 40 CFR 63, Subpart BBBB – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities

## SECTION A

## SOURCE SUMMARY

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

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary pipeline breakout tank farm and bulk liquid fuel storage and transfer station.

Source Address:	400 East Columbus Drive, East Chicago, Indiana 46312
General Source Phone Number:	219-713-2581
SIC Code:	5171
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

#### INDIANAPOLIS BOULEVARD TERMINAL

- (a) Ten (10) vertical domed internal floating roof storage tanks used to store petroleum products, constructed between 1935 and 1957, each tank is equipped with a primary and secondary seal:
- (1) Tank 106 has a maximum design capacity of 1,054,484 gallons;
  - (2) Tank 107 has a maximum design capacity of 1,031,884 gallons;
  - (3) Tank 108 has a maximum design capacity of 1,054,783 gallons;
  - (4) Tank 112 has a maximum design capacity of 2,075,798 gallons;
  - (5) Tank 120 has a maximum design capacity of 2,853,291 gallons;
  - (6) Tank 123 has a maximum design capacity of 2,818,841 gallons;
  - (7) Tank 130 has a maximum design capacity of 3,915,368 gallons;
  - (8) Tank 131 has a maximum design capacity of 3,915,368 gallons;
  - (9) Tank 132 has a maximum design capacity of 3,915,368 gallons;
  - (10) Tank 133 has a maximum design capacity of 3,915,368 gallons.

- (b) Two (2) internal floating roof above ground storage tanks (Tank 134 and Tank 135) used to store petroleum products constructed July 17, 1998. Each tank is equipped with a primary and secondary seal. Each tank has a maximum design capacity of 5,040,000 gallons.
- (c) One (1) existing fixed roof tank, constructed in 1941 and modified July 17, 1998, into a new internal floating roof above ground storage tank (Tank 151) used to store petroleum products. The tank is equipped with a primary and secondary seal, and has a maximum design capacity of 5,040,000 gallons.
- (d) One (1) vertical fixed roof cone storage tank (Tank 150), constructed in 1941, used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68°F. The tank has a maximum design capacity of 3,382,609 gallons.

#### PROPYLENE OR BUTANE/BUTYLENE BLEND STORAGE AND LOADING FACILITY

- (e) Two (2) 21,000 barrel storage pressure spheres, using a portable vapor control unit (VCU), or equivalent, to control point source VOC emissions.
- (f) Twelve (12) stand propylene or butane/butylene blend rail loading rack, using a portable vapor control unit (PVCU), or equivalent, to control point source VOC emissions.
- (g) Fugitive VOC emissions from propylene or butane/butylene blend storage, loading and maintenance operations.

#### EAST COLUMBUS DRIVE TERMINAL

- (h) One (1) 813,624 gallon external floating roof gasoline storage tank, identified as T-201, with primary and secondary seals, constructed in 1939.
- (i) One (1) 653,100 gallon external floating roof gasoline storage tank, identified as T-202, with primary and secondary seals, constructed in 1939.
- (j) Two (2) 2,956,380 gallon gasoline storage tanks, identified as T-801 and T-802, both-with primary and secondary seals, constructed in 1939. Tank T-801 is an external floating roof tank. Tank T-802 is a domed internal floating roof tank, dome added in 2010.
- (k) One (1) 2,759,316 gallon external floating roof gasoline storage tank, identified as T-803, with primary and secondary seals, constructed in 1939.
- (l) One (1) 2,853,732 gallon external floating roof gasoline storage tank, identified as T-804, with primary and secondary seals, constructed in 1939.
- (m) One (1) 3,055,542 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-805, with primary and secondary seals, constructed in 1939, dome added in 2010.
- (n) One (1) 2,843,274 gallon external floating roof gasoline storage tank, identified as T-806, with primary and secondary seals, constructed in 1939.
- (o) One (1) 616,938 gallon internal floating roof gasoline storage tank, identified as T-204, with a primary seal, constructed in 1939.
- (p) One (1) 630,000 gallon internal floating roof gasoline storage tank, identified as T-207, with a primary seal, constructed in 1946.

- (q) One (1) 696,695 gallon internal floating roof gasoline/transmix (a gasoline/distillate oil mixture) storage tank, identified as T-209, with a primary seal, constructed in 1946.
- (r) One (1) 739,830 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-208, constructed in 1946.
- (s) One (1) 964,824 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-240, constructed in 1968.
- (t) One (1) 8,633,646 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2101, constructed in 1955.
- (u) One (1) 8,618,190 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2102, constructed in 1955.
- (v) One (1) 10,847,382 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2601, originally constructed in 1960 and later modified in 2002.
- (w) One (1) 10,835,328 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2602, originally constructed in 1960 and later modified in 2002.
- (x) Two (2) 635,040 gallon vertical fixed roof distillate/kerosene storage tanks, identified as T-205 and T-206, constructed in 1939.
- (y) One (1) 3,410,988 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-807, constructed in 1939.
- (z) One (1) 2,000 gallon horizontal fixed roof gasoline additive storage tank, identified as T-1508 and one (1) 500 gallon horizontal fixed-roof jet fuel additive storage tank, identified T-1509, approved in 2014 to replace two (2) existing additive storage tanks (T-1501 and T-1502).
- (aa) One (1) 1,465,002 gallon domed internal floating roof gasoline storage tank, identified as T-401, with a primary seal, constructed in 1952.
- (bb) Two (2) 2,857,890 gallon domed internal floating roof gasoline storage tanks, identified as T-809 and T-810, each with a primary seal, both constructed in 1952.
- (cc) One (1) 2,841,552 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-808, with a primary and seal, constructed in 1952.
- (dd) One (1) new internal floating roof (IFR) storage tank, identified as tank 136 approved in 2015 for construction with a maximum capacity of 131,600 barrel (131.6 kbbbl) permitted to store Gasoline, Bakken Crude, Ethanol and Distillate (RVP13 products or lower);
- (ee) One (1) new vertical fixed roof storage tank (VFRT), identified as tank 137 approved in 2015 for construction with a maximum capacity of 217,500 barrel (217.5 kbbbl) permitted to store distillate fuel oils.
- (ff) Gasoline tank cleaning operation, identified as TNKCLN GAS.
- (gg) One (1) tank truck loading rack (identified as RACK) used to load gasoline, distillate, and ethanol, with a maximum loading capacity of 324,000 gallons of liquid per hour, constructed in 1940 and later reconstructed in 1979, controlled by one (1) natural gas fired Vapor Combustion Unit (VCU), rated at maximum heat input rate of 1.6 MMBtu/hr, installed in 1997, and exhausting through one (1) stack identified as VCU.

- (hh) One (1) VOC fractionator for separating gasoline and fuel oil of transmix tanks, identified as FRACT, venting 125 cubic feet of VOC vapor per minute during intermittent pressure relief with venting gas being controlled by VCU, and equipped with a 7.0 million British thermal units per hour natural gas fired reboiler;
- (ii) VOC emissions from the following operations:
  - (1) Fugitive VOC emissions from the loading rack, identified as FLRACK.
  - (2) Filter change out service for gasoline tanks, identified as FILT1.
  - (3) Meter proving service, identified as PROVE.
- (jj) A wastewater handling and treatment system, capable of treating 420,000 gallons of contaminated water per hour, including the following activities:
  - (1) Five (5) sumps for wastewater from tank water draw and roof drains;
  - (2) One (1) sump for wastewater from loading rack;
  - (3) One (1) 379,638 gallon internal floating roof waste water/gasoline storage tank, identified as T-103, constructed in 1939;
  - (4) One (1) dissolved air floatation oil/water separator, identified as TS DAF, with a maximum capacity of 12,000 gallons per hour;
  - (5) One (1) oil/water separator, identified as TS OWS/Separator No. 1, with a maximum capacity of 11,000 gallons per hour; and
  - (6) One (1) air stripper capable of processing a maximum of 23,000 gallons of water per hour.

A.3 Specifically Regulated Insignificant Activities  
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

INDIANAPOLIS BOULEVARD TERMINAL

- (a) Five (5) vertical fixed roof cone storage tanks used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68 F, constructed in
  - (1) Tank 103 has a maximum design capacity of 836,368 gallons;
  - (2) Tank 122 has a maximum design capacity of 2,853,291 gallons;
  - (3) Tank 140 has a maximum design capacity of 3,382,609 gallons;
  - (4) Tank 141 has a maximum design capacity of 3,382,609 gallons;
  - (5) Tank 142 has a maximum design capacity of 3,382,609 gallons.
- (b) Two (2) horizontal distillate additive tanks, constructed in 2005:

- (1) Tank AT 01 has a maximum design capacity of 12,000 gallons;
- (2) Tank AT 02 has a maximum design capacity of 12,000 gallons.

#### PROPYLENE STORAGE AND LOADING FACILITY

- (c) One (1) 550 gallon red-dye additive tank.
- (d) One (1) butane truck off load station. Butane comes in trucks and injected through piping under pressure to fill existing butane tanks. Before the off load station, butane comes from underground piping networks from other states.
- (e) One (1) rail fueling station
- (f) One candlestick flare for control of propylene maintenance activities that are below the ideal operating range of the existing portable vapor combustion units (PVCU).

#### EAST COLUMBUS DRIVE TERMINAL

- (g) Two (2) horizontal above ground storage tanks, identified as BD-1 and BD-2, with a maximum capacity of 20,000 gallon each, permitted in 2012.
- (h) One (1) 32 horsepower (Hp) emergency fire pump, ID IC-1, approved in 1998 for construction.

#### ENTIRE SITE

- (i) Paved and unpaved roads and parking lots with public access. [326 IAC 6 4]

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

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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 Definitions [326 IAC 2-7-1]

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

### B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

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- (a) This permit, T089-33112-00320, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

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- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
  - (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

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, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

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

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Emergency Provisions [326 IAC 2-7-16]**

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- (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.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865  
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553.

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

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

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) 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.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) 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, IDEM, OAQ 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.

- (c) 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. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) 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.
- (e) 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).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T089-36461-00320 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 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.15 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 Operating 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)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(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, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. 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(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]**

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- (a) Permit amendments and modifications are governed by 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  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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- (a) No Part 70 permit revision or notice 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) 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.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) 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 preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in 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  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, 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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (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(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). 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 is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at 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, OAQ 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.20 Source Modification Requirement [326 IAC 2-7-10.5]**

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

**B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (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.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

**C.2 Opacity [326 IAC 5-1]**

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

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

**C.6 Fugitive Particulate Matter Emissions [326 IAC 6.8-10-3]**

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).

- (c) The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average.
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) Material processing facilities shall include the following:
  - (1) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
  - (2) The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
  - (3) The PM<sub>10</sub> stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
  - (4) The opacity of fugitive particulate emissions from the material processing facilities, except a crusher at which a capture system is not used, shall not exceed ten percent (10%) opacity.
  - (5) The opacity of fugitive particulate emissions from a crusher at which a capture system is not used shall not exceed fifteen percent (15%).
- (i) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (j) Material transfer limits shall be as follows:
  - (1) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
  - (2) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%), three (3) minute average.
  - (3) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:
    - (A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.
    - (B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks

shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3(9).

- (k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the attached Fugitive Dust Control Plan.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

### C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

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- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:  
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

### C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

**C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.13 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]**

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

**C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]**

- 
- (l) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
    - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
    - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
      - (1) initial inspection and evaluation;
      - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
      - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
    - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
      - (1) monitoring results;
      - (2) review of operation and maintenance procedures and records; and/or
      - (3) inspection of the control device, associated capture system, and the process.
    - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.

- (e) The Permittee shall record the reasonable response steps taken.
- (II)
- (a) *CAM Response to excursions or exceedances.*
    - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
    - (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
  - (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
  - (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
  - (d) Elements of a QIP:  
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
  - (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
  - (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

- (1) Failed to address the cause of the control device performance problems;  
or
  - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
- (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
  - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

**C.15 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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

**C.16 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) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:
  - (1) starting in 2004 and every three (3) years thereafter, and

- (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.
- (b) The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:
  - (AA) All calibration and maintenance records.
  - (BB) All original strip chart recordings for continuous monitoring instrumentation.
  - (CC) Copies of all reports required by the Part 70 permit.Records of required monitoring information include the following, where applicable:
  - (AA) The date, place, as defined in this permit, and time of sampling or measurements.
  - (BB) The dates analyses were performed.
  - (CC) The company or entity that performed the analyses.
  - (DD) The analytical techniques or methods used.
  - (EE) The results of such analyses.
  - (FF) The operating conditions as existing at the time of sampling or measurement.These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]  
[40 CFR 64][326 IAC 3-8]

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## **Stratospheric Ozone Protection**

### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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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 applicable standards for recycling and emissions reduction.

## **Ambient Monitoring Requirements [326 IAC 7-3]**

### **C.20 Ambient Monitoring [326 IAC 7-3]**

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- (a) The Permittee shall operate continuous ambient sulfur dioxide air quality monitors and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).
- (b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]
- (c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]: INDIANAPOLIS BOULEVARD TERMINAL

- (a) Two (2) internal floating roof above ground storage tanks (Tank 134 and Tank 135) used to store petroleum products constructed July 17, 1998. Each tank is equipped with a primary and secondary seal. Each tank has a maximum design capacity of 5,040,000 gallons.
- (b) One (1) existing fixed roof tank, constructed in 1941 and modified July 17, 1998, into a new internal floating roof above ground storage tank (Tank 151) used to store petroleum products. The tank is equipped with a primary and secondary seal, and has a maximum design capacity of 5,040,000 gallons.

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

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

#### D.1.1 Emission Offset Minor Limit [326 IAC 2-3]

Tank 134, Tank 135 and Tank 151 shall use a combined total of less than 677,663,000 gallons of petroleum product per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of VOC to less than 25 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) not applicable to these tanks modified in 1998 by Construction Permit CP-089-9508-00320.

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)] [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for Tank 134, Tank 135 and Tank 151. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

#### D.1.3 Record Keeping Requirements [326 IAC 8-4-3(d)]

- (a) The following records of petroleum liquid storage vessels (Tank 134, Tank 135, and Tank 151) shall be maintained for a period of two (2) years, unless otherwise specified. These records shall be made available to the commissioner upon written request:
  - (1) The types of volatile petroleum liquid stored.
  - (2) The maximum true vapor pressure of the liquid as stored.
  - (3) The results of the inspections performed on the storage vessels. 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).
- (b) To document the compliance status with Condition D.1.1, monthly records shall be kept of the number of gallons of petroleum product each tank (Tank 134, Tank 135, and Tank 151) uses per twelve (12) consecutive month period.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

#### D.1.4 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.1.1 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.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: INDIANAPOLIS BOULEVARD TERMINAL

Ten (10) vertical domed internal floating roof storage tanks used to store petroleum products, constructed between 1935 and 1957. Each tank is equipped with a primary and secondary seal:

- (1) Tank 106 has a maximum design capacity of 1,054,484 gallons;
- (2) Tank 107 has a maximum design capacity of 1,031,884 gallons;
- (3) Tank 108 has a maximum design capacity of 1,054,783 gallons;
- (4) Tank 112 has a maximum design capacity of 2,075,798 gallons;
- (5) Tank 120 has a maximum design capacity of 2,853,291 gallons;
- (6) Tank 123 has a maximum design capacity of 2,818,841 gallons;
- (7) Tank 130 has a maximum design capacity of 3,915,368 gallons;
- (8) Tank 131 has a maximum design capacity of 3,915,368 gallons;
- (9) Tank 132 has a maximum design capacity of 3,915,368 gallons;
- (10) Tank 133 has a maximum design capacity of 3,915,368 gallons.

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

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

#### D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

- (a) Pursuant to 326 IAC 8-9-4(a)(2), Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 shall be installed with an internal floating roof meeting the standards in 326 IAC 8-9-4(c), 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 (90) percent of the opening.
  - (10) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
- (b) Pursuant to 326 IAC 8-9-4(a)(4), Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 shall be installed with one (1) of the following:
    - (1) Emission control equipment.
    - (2) A schedule for vessel cleaning and installation of emission control equipment.

### **Compliance Determination Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### **D.2.2 Testing and Procedures [326 IAC 8-9-5]**

Pursuant to 326 IAC 8-9-5 (Volatile Organic Liquid Storage Vessels: Testing and Procedures), on and after May 1, 1996, except as provided in 326 IAC 8-9-4(a)(2), the owner or operator of each vessel equipped with an internal floating roof (Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133) shall meet the following requirements:

- (a) 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.
- (b) 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 326 IAC 8-9-6(c)(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.
- (c) For vessels equipped with both primary and secondary seals:
  - (1) visually inspect the vessel as specified in paragraph (d) of this condition, at least every five (5) years; or
  - (2) visually inspect the vessel as specified in paragraph (b) of this condition.
- (d) 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 gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than ten (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 vessel with VOL. In no event shall the inspections required by this paragraph occur at intervals greater than ten (10) years in the case of vessels conducting the annual visual inspection as specified in paragraphs (b) and (c)(2) of this condition and at intervals no greater than five (5) years in the case of vessels specified in paragraph (c)(1) of this condition.
- (e) 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 (a) and (d) of this section to afford the Administrator (IDEM) the opportunity to have an observer present. If the inspection required by paragraph (d) of this section is not planned and the Permittee could not have known about the inspection 30 days in advance or refilling the tank, the Permittee 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.

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

### **D.2.3 Record Keeping Requirements [326 IAC 8-4-3(d)]**

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- (a) Pursuant to 326 IAC 8-4-3(d) (Petroleum Sources: Petroleum Liquid Storage Facilities), the owner or operator of Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 shall maintain the following records for a period of two (2) years. Such records shall be made available to the commissioner upon written request:
- (1) The types of volatile petroleum liquid stored.
  - (2) The maximum true vapor pressure of the liquid as stored.
  - (3) The results of the inspections performed on the storage vessels.
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

### **D.2.4 Record Keeping and Reporting Requirements [326 IAC 8-9-6]**

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- (a) Pursuant to 326 IAC 8-9-6(a), the owner or operator of Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 shall keep all records required by this condition for three (3) years unless specified otherwise. Records required by paragraph (b) shall be maintained for the life of the vessel.
- (b) Pursuant to 326 IAC 8-9-6(b), the owner or operator of Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 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, or a schedule for installation of emission control equipment with a certification that the emission control equipment meets the applicable standards.
- (c) Pursuant to 326 IAC 8-9-6(c), the owner or operator of Tank 106, Tank 107, Tank 108, Tank 112, Tank 120, Tank 123, Tank 130, Tank 131, Tank 132, and Tank 133 shall comply with the following record keeping and reporting requirements:
- (1) Keep a record of each inspection performed as required by Conditions D.2.2(a) through (d). 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 Condition D.2.2(b) 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 Condition D.2.2(c) 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 D.2.2(c)(2), 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 Condition D.2.1(a), or Condition D.2.2 and list each repair made.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.2.5 Reporting Requirements [326 IAC 8-9-5]

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.

### SECTION D.3 FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]: INDIANAPOLIS BOULEVARD TERMINAL

(a) One (1) vertical fixed roof cone storage tank (Tank 150), constructed in 1941 used to store petroleum distillates. The tank has a maximum design capacity of 3,382,609 gallons.

(b) The following insignificant tanks:

Five (5) vertical fixed roof cone storage tanks used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68°F, constructed in 1941:

- (1) Tank 103 has a maximum design capacity of 836,368 gallons;
- (2) Tank 122 has a maximum design capacity of 2,853,291 gallons;
- (3) Tank 140 has a maximum design capacity of 3,382,609 gallons;
- (4) Tank 141 has a maximum design capacity of 3,382,609 gallons;
- (5) Tank 142 has a maximum design capacity of 3,382,609 gallons.

Two (2) horizontal distillate additive tanks, constructed in 2005:

- (1) Tank AT-01 has a maximum design capacity of 12,000 gallons;
- (2) Tank AT-02 has a maximum design capacity of 12,000 gallons.

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

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

##### D.3.1 Record Keeping and Reporting Requirements [326 IAC 8-9-6]

- (a) Pursuant to 326 IAC 8-9-6(a) (Volatile Organic Liquid Storage Vessels: Record Keeping and Reporting Requirements), the Permittee shall keep all records for three (3) years unless specified otherwise for each vertical fixed roof cone storage tank (Tank 103, Tank 122, Tank 140, Tank 141, Tank 142, and Tank 150) and each horizontal distillate additive tank (AT-01 and AT-02).
- (b) Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain these records for the life of the vessel and shall submit to IDEM, OAQ a report containing the following information for each vertical fixed roof cone storage tank (Tank 103, Tank 122, Tank 140, Tank 141, Tank 142, and Tank 150) and each horizontal distillate additive tank (AT-01 and AT-02):
  - (1) The vessel identification number.
  - (2) The vessel dimensions.
  - (3) The vessel capacity.

- (c) Pursuant to 326 IAC 8-9-6(h), for each vertical fixed roof cone storage tank (Tank 103, Tank 122, Tank 140, Tank 141, Tank 142, and Tank 150), the Permittee shall maintain a record and notify the department within thirty (30) days when the maximum true vapor pressure of the liquid exceeds 0.75 psia.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: INDIANAPOLIS BOULEVARD TERMINAL

The total source, consisting of the following:

- (1) Tank 106 has a maximum design capacity of 1,054,484 gallons;
- (2) Tank 107 has a maximum design capacity of 1,031,884 gallons;
- (3) Tank 108 has a maximum design capacity of 1,054,783 gallons;
- (4) Tank 112 has a maximum design capacity of 2,075,798 gallons;
- (5) Tank 120 has a maximum design capacity of 2,853,291 gallons;
- (6) Tank 123 has a maximum design capacity of 2,818,841 gallons;
- (7) Tank 130 has a maximum design capacity of 3,915,368 gallons;
- (8) Tank 131 has a maximum design capacity of 3,915,368 gallons;
- (9) Tank 132 has a maximum design capacity of 3,915,368 gallons;
- (10) Tank 133 has a maximum design capacity of 3,915,368 gallons;
- (11) Tank 134 has a maximum design capacity of 5,040,000 gallons;
- (12) Tank 135 has a maximum design capacity of 5,040,000 gallons;
- (13) Tank 151 has a maximum design capacity of 5,040,000 gallons.
- (14) Tank 103 has a maximum design capacity of 836,368 gallons;
- (15) Tank 122 has a maximum design capacity of 2,853,291 gallons;
- (16) Tank 140 has a maximum design capacity of 3,382,609 gallons;
- (17) Tank 141 has a maximum design capacity of 3,382,609 gallons;
- (18) Tank 142 has a maximum design capacity of 3,382,609 gallons;
- (19) Tank 150 has a maximum design capacity of 3,382,609 gallons.

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

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

#### D.4.1 General Record Keeping and Reports [326 IAC 8-7-8]

Pursuant to 326 IAC 8-7-8 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties: General Record Keeping and Reports), the Permittee shall comply with the following requirements:

- (a) Records shall be kept for at least three (3) years.
- (b) Records used to demonstrate that the source is exempt from the requirements of 326 IAC 8-7 shall be submitted to IDEM, OAQ or U.S. EPA within thirty (30) days of the receipt of a written request. If such records are not available, the source shall be considered to be subject to the emission limits contained in 326 IAC 8-7-3.
- (c) The Permittee shall notify IDEM, OAQ at least thirty (30) days prior to the addition or modification of a facility which may result in a potential increase in VOC emissions.

## SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

### **Emissions Unit Description: PROPYLENE STORAGE AND LOADING FACILITY**

- (e) Two (2) 21,000 barrel storage pressure spheres. A portable vapor control unit (VCU), or equivalent, will be used to control point source VOC emissions.
- (f) Twelve (12) stand propylene or butane/butylene blend rail loading rack, using a portable vapor control unit (PVCU), or equivalent, to control point source VOC emissions.
- (g) Fugitive VOC emissions from propylene or butane/butylene blend storage, loading and maintenance operations.

#### Insignificant Activities:

- (c) One (1) 550 gallon red-dye additive tank.
- (d) One (1) butane truck off load station. Butane comes in trucks and injected through piping under pressure to fill existing butane tanks. Before the off load station, butane comes from underground piping networks from other states.
- (e) One (1) rail fueling station
- (f) One candlestick flare for control of propylene maintenance activities that are below the ideal operating range of the existing portable vapor combustion units (PVCU).

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

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

#### **D.5.1 PSD Minor Limits [326 IAC 2-2]**

- (a) The VOC emissions from full ventdown events (for each sphere) shall not exceed 1.38 tons per twelve month period with compliance determined at the end of each month
- (b) The VOC emissions from depressurization events (for each sphere) shall not exceed 2.39 tons per twelve month period with compliance determined at the end of each month.
- (c) The VOC emissions from the propylene rail loading rack shall not exceed 16.22 tons per twelve month period with compliance determined at the end of each month.
- (d) The VOC emissions from line purging shall not exceed 0.35 tons per twelve month period with compliance determined at the end of each month
- (e) The VOC emissions from equipment leaks shall not exceed 4.32 tons per twelve month period with compliance determined at the end of each month. The equipment leaks shall be limited by conducting a Leak Detection and Repair (LDAR) Program as specified in Attachment C.

Compliance with these emission limits, along with the unrestricted potential emissions from propylene disconnect, will limit the potential to emit from this modification to less than forty (40) tons per year of VOC. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to this modification approved under Source Modification No.: 089-30669-00320.

#### D.5.2 VOC BACT Limits [326 IAC 8-1-6]

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- (a) The Permittee shall use a vapor combustion unit (or equivalent) to control the VOC emissions from the propylene storage spheres
- (b) The VOC emissions from full ventdown events (for each sphere) shall not exceed 1.38 tons per twelve month period with compliance determined at the end of each month.
- (c) The VOC emissions from depressurization events (for each sphere) shall not exceed 2.39 tons per twelve month period with compliance determined at the end of each month.
- (d) The VOC emissions from Tank Breathing losses (for each sphere) shall not exceed 1.0 tons per twelve month period with compliance determined at the end of each month.

#### D.5.3 Specific VOC Reduction Requirements for Lake/Porter/Clark/Floyd Counties [326 IAC 8-7-3]

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Pursuant to 326 IAC 8-7-3, the Permittee shall achieve an overall VOC reduction from the propylene or butane/butylene blend loading rack of at least ninety-eight percent (98%) by the documented reduction in use of VOC containing materials or install an add-on control system that achieves an overall control efficiency of ninety-eight percent (98%).

#### D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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A Preventive Maintenance Plan is required for the each sphere, the railcar loading rack, line purging, and equipment leaks and the vapor control units. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

### **Compliance Determination Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### D.5.5 Vapor Combustion Unit (VCU) Operation [326 IAC 2-7-6(1),(6)]

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- (a) A Portable Vapor Combustion Unit (PVCU) for VOC control shall be in operation at all times, when propylene or butane/butylene blend is being loaded or unloaded from the spheres or railcars. Line purging events are controlled with a PVCU or candlestick flare.
- (b) Pursuant to 326 IAC 8-7-9(1-2), the control system for the propylene or butane/butylene blend loading rack shall be operated and maintained according to the manufacturer's recommendations but may be modified based on the results of the initial or subsequent compliance test or upon the written request of IDEM, OAQ, and the operating and maintenance procedures shall be followed upon startup.

#### D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

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- (a) In order to demonstrate the compliance status with Conditions D.5.1(a) and D.5.2(a) and (b), the Permittee shall perform testing to verify the VOC emissions from portable vapor combustion unit (PVCU) utilizing methods as approved by the Commissioner during full ventdown no later than the first full ventdown event.
- (b) In order to demonstrate the compliance status with Conditions D.5.1(b) and (d) and D.5.2(a) and (c), the Permittee shall perform testing to verify the VOC emissions from portable vapor combustion unit (PVCU) utilizing methods as approved by the Commissioner during depressurization periods no later than the second depressurization event.
- (c) In order to demonstrate the compliance status with Conditions D.5.1(c), the Permittee shall perform testing to verify the VOC emissions from portable vapor combustion unit (PVCU) utilizing methods as approved by the Commissioner.

- (d) Testing required by paragraphs (a), (b), and (c) of this condition shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration, alternating spheres for depressurization and ventdown events. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.
- (e) Pursuant to 326 IAC 8-7-9(4) and in order to demonstrate compliance with Condition D.5.3, the Permittee shall test the control system for the propylene or butane/butylene blend rail loading rack according to the following schedule and under the following situations:
- (1) The propylene or butane/butylene blend rail loading rack testing shall be repeated every two (2) years after the date of the initial test.
  - (2) A compliance test shall also be conducted whenever the owner or operator chooses to operate a control system under conditions different from those that were in place at the time of the previous test.
  - (3) If the owner or operator chooses to change the method of compliance with 326 IAC 8-7-3, a compliance test shall be performed within three (3) months of the change.

Pursuant to 326 IAC 8-7-9(5), all compliance tests shall be conducted according to a protocol approved by the department at least thirty (30) days before the test. The protocol shall contain, at a minimum, the following information:

- (A) Test procedures.
- (B) Operating and control system parameters.
- (C) Type of VOC containing process material being used.
- (D) The process and control system parameters which will be monitored during the test.

#### D.5.7 Volatile Organic Compounds (VOC)

- (a) In order to ensure compliance with the VOC emission limitations in Conditions D.5.1(a), D.5.1(b), D.5.2(a), and D.5.2(b), the Permittee shall use the following methodology to calculate VOC emissions from the Propylene Storage Spheres (Sphere 1 and Sphere 2):

$$E_S = (M_S \times EV_S) \times (1.0 - VCU \text{ DRE}) / 2000 \text{ lb/ton}$$

Where  $E_S$  = VOC Emissions, tons/month

$M_S$  = Mass removed, lb/event

= 137,563 lb/ sphere full ventdown event

= 29,830 lb/ sphere pressure bleedoff event

$EV_S$  = Number of Events, events/month

VCU DRE = VOC Destruction Efficiency, %, as determined during the most recent valid compliance demonstration

- (b) In order to ensure compliance with the VOC emission limitations in Condition D.5.1(c), the Permittee shall use the following methodology to calculate VOC emissions from the Railcar Loading Rack:

$$E_R = (M_R \times EV_R) \times (1.0 - VCU \text{ DRE}) / 2000 \text{ lb/ton}$$

Where  $E_R$  = VOC Emissions, tons/month  
 $M_R$  = Mass removed, lb/event  
 $EV_R$  = Number of Events, events/month  
= 2,046 lb/ railcar bleedoff event  
VCU DRE = VOC Destruction Efficiency, %, as determined during the most recent valid compliance demonstration

- (c) In order to ensure compliance with the VOC emission limitations in Condition D.5.1(d), the Permittee shall use the following methodology to calculate VOC emissions from the Line Purging:

$$E_P = (M_P \times EV_P) \times (1.0 - \text{VCU DRE}) / 2000 \text{ lb/ton}$$

Where  $E_P$  = VOC Emissions, tons/month  
 $M_P$  = Mass removed, lb/event  
= 8,774 lb/ line purging event  
 $EV_P$  = Number of Events, events/month  
VCU DRE = VOC Destruction Efficiency, %, as determined during the most recent valid compliance demonstration

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

#### D.5.8 Vapor Combustion Unit Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

- (a) The Permittee shall install and maintain a monitor to detect the presence of a pilot flame. The presence of a pilot flame shall be monitored using a heat-sensing device at all times when the vapors are being vented to the PVCU. The monitor shall be equipped with a computer system which will not allow for the propylene or butane/butylene blend loading or unloading operations from the spheres or railcars, and line purging events when the presence of a flame is not detected during periods when propylene or butane/butylene blend vapors are being vented to the PVCU.
- (b) Pursuant to 326 IAC 8-7-10(a)(1), the Permittee shall install and utilize a temperature monitoring device capable of continuously recording the temperature of the gas stream in the combustion zone of the incinerator shall be used for controlling VOC emissions from the propylene or butane/butylene blend rail loading rack. The temperature monitoring device shall have an accuracy of one percent (1%) of the temperature being measured in degrees centigrade or plus or minus five-tenths degree Centigrade (+/- 0.5 °C), whichever is greater.

#### D.5.9 Monthly Visible Checks for Liquid Leaks [40 CFR Part 64]

- (a) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling propylene or butane/butylene blend shall be inspected during the loading and unloading of spheres and railcars and line purging events for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.
- (b) If abnormal leakage is observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

- (c) All checks for visible liquid leaks made to comply with this condition shall be conducted in accordance with Section C - Compliance Monitoring.

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

#### **D.5.10 Record Keeping Requirements**

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- (a) To document the compliance status with Conditions D.5.1, D.5.2, and D.5.7, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.5.1 and D.5.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The mass of VOC removed during full sphere ventdown, sphere pressure bleedoff, railcar bleedoff, and line purging.
  - (2) The number of ventdown or flaring events (full sphere ventdown, sphere pressure bleedoff, railcar bleedoff, and line purging).
  - (3) The removal efficiency of each vapor control unit.
- (b) To document the compliance status with Condition D.5.9, the Permittee shall maintain records of monthly checks for liquid leaks of the Loading Rack and VCU stack exhausts.
- (c) Pursuant to 326 IAC 8-7-9(3) and to document the compliance status with Condition D.5.5(b), the Permittee shall maintain a copy of the operating and maintenance procedures for the vapor control unit used to control VOC emissions from the propylene or butane/butylene blend loading rack in a convenient location at the source property and as close to the control system as possible for the reference by plant personnel and IDEM, OAQ, inspectors.
- (d) Pursuant to 326 IAC 8-7-10(b) and to document the compliance status with Condition D.5.8(b), the Permittee shall maintain the following records for the vapor control unit used to control VOC emissions from the propylene or butane/butylene blend loading rack:
- (1) A log of the operating time of the facility and the facility's capture system, control device, and monitoring equipment.
  - (2) A maintenance log for the capture system, the control device, and the monitoring equipment detailing all routine and nonroutine maintenance performed. The log shall include the dates and duration of any outages of the capture system, the control device, or the monitoring system.
  - (3) The following additional records shall be maintained for facilities using thermal incinerators:
    - (A) Continuous records of the temperature in the gas stream in the combustion zone of the incinerator.
    - (B) Records of all three (3) hour periods of operation for which the average combustion temperature of the gas stream in the combustion zone was more than fifty degrees Fahrenheit (50°F) below the combustion zone temperature which existed during the most recent compliance test that demonstrated that the facility was in compliance.

- (4) Information requirements in subdivision (3)(B) shall be submitted to IDEM, OAQ, within thirty (30) days of occurrence. The following information shall accompany the submittal:
  - (A) The name and location of the facility.
  - (B) Identification of the control system where the excess emission occurred and the facility it served.
  - (C) The time, date, and duration of the exceedance.
  - (D) Corrective action taken.
- (e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

#### D.5.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.5.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days following the end of each quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

**SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description: EAST COLUMBUS DRIVE TERMINAL**

- (h) One (1) 813,624 gallon external floating roof gasoline storage tank, identified as T-201, with primary and secondary seals, constructed in 1939.
- (i) One (1) 653,100 gallon external floating roof gasoline storage tank, identified as T-202, with primary and secondary seals, constructed in 1939.
- (j) Two (2) 2,956,380 gallon gasoline storage tanks, identified as T-801 and T-802, both-with primary and secondary seals, constructed in 1939. Tank T-801 is an external floating roof tank. Tank T-802 is a domed internal floating roof tank, dome added in 2010.
- (k) One (1) 2,759,316 gallon external floating roof gasoline storage tank, identified as T-803, with primary and secondary seals, constructed in 1939.
- (l) One (1) 2,853,732 gallon external floating roof gasoline storage tank, identified as T-804, with primary and secondary seals, constructed in 1939.
- (m) One (1) 3,055,542 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-805, with primary and secondary seals, constructed in 1939, dome added in 2010.
- (n) One (1) 2,843,274 gallon external floating roof gasoline storage tank, identified as T-806, with primary and secondary seals, constructed in 1939.
- (o) One (1) 616,938 gallon internal floating roof gasoline storage tank, identified as T-204, with a primary seal, constructed in 1939.
- (p) One (1) 630,000 gallon internal floating roof gasoline storage tank, identified as T-207, with a primary seal, constructed in 1946.
- (q) One (1) 696,695 gallon internal floating roof gasoline/transmix (a gasoline/distillate oil mixture) storage tank, identified as T-209, with a primary seal, constructed in 1946.
- (r) One (1) 739,830 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-208, constructed in 1946.
- (s) One (1) 964,824 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-240, constructed in 1968.
- (t) One (1) 8,633,646 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2101, constructed in 1955.
- (u) One (1) 8,618,190 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2102, constructed in 1955.
- (v) One (1) 10,847,382 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2601, originally constructed in 1960 and later modified in 2002.
- (w) One (1) 10,835,328 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2602, originally constructed in 1960 and later modified in 2002.
- (x) Two (2) 635,040 gallon vertical fixed roof distillate/kerosene storage tanks, identified as T-205 and T-206, constructed in 1939.

- (y) One (1) 3,410,988 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-807, constructed in 1939.
- (z) One (1) 2,000 gallon horizontal fixed roof gasoline additive storage tank, identified as T-1508 and one (1) 500 gallon horizontal fixed-roof jet fuel additive storage tank, identified T-1509, approved in 2014 to replace two (2) existing additive storage tanks (T-1501 and T-1502).
- (aa) One (1) 1,465,002 gallon domed internal floating roof gasoline storage tank, identified as T-401, with a primary seal, constructed in 1952.
- (bb) Two (2) 2,857,890 gallon domed internal floating roof gasoline storage tanks, identified as T-809 and T-810, each with a primary seal, both constructed in 1952.
- (cc) One (1) 2,841,552 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-808, with a primary and seal, constructed in 1952.
- (dd) Gasoline tank cleaning operation, identified as TNKCLN GAS.
- (ee) One (1) new internal floating roof (IFR) storage tank, identified as tank 136 approved in 2015 for construction with a maximum capacity of 131,600 barrel (131.6 kbbbl) permitted to store Gasoline, Bakken Crude, Ethanol and Distillate (RVP13 products or lower);
- (ff) One (1) new vertical fixed roof storage tank (VFRT), identified as tank 137 approved in 2015 for construction with a maximum capacity of 217,500 barrel (217.5 kbbbl) permitted to store distillate fuel oils.

Insignificant Activities:

- (g) Two (2) horizontal above ground storage tanks, identified as BD-1 and BD-2, with a maximum capacity of 20,000 gallon each, permitted in 2012.

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

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

#### **D.6.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]**

Pursuant to 326 IAC 8-4-3, Tank Nos. T-103, T-201, T-202, T-204, T-207, T-209, T-401, T-801, T-802, T-803, T-804, T-805, T-806, T-808, T-809, T-810, tank 136, and tank 137 are subject to the following:

- (a) For External Fixed Roof Tanks
  - (1) The facility must be retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall unless the source has been retrofitted with equally effective alternative control which has been approved.
  - (2) The facility is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.
  - (3) All openings, except stub drains, are equipped with covers, lids, or seals such that:

- (A) the cover, lid, or seal is in the closed position at all times except when in actual use;
- (B) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (C) rim vents, if provided are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(b) For External Floating Roof Tanks

The owner of a facility subject to this subsection shall not store a petroleum liquid in that facility unless:

- (1) The facility has been fitted with:
  - a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or
  - a closure or other device approved by the commissioner which is equally effective.
- (2) All seal closure devices meet the following requirements:
  - (A) there are no visible holes, tears, or other openings in the seal(s) or seal fabric;
  - (B) the seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall;
  - (C) for vapor mounted primary seals, the accumulated gap area around the circumference of the secondary seal where a gap exceeding one-eighth (1/8) inch exists between the secondary seal and the tank wall shall not exceed 1.0 square inch per foot of tank diameter. There shall be no gaps exceeding one-half (1/2) inch between the secondary seal and the tank wall of welded tanks and no gaps exceeding one (1) inch between the secondary seal and the tank wall of riveted tanks.
- (3) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves are:
  - (A) equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and
  - (B) equipped with projections into the tank which remain below the liquid surface at all times.
- (4) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (5) Rim vents are set to open when the roof is being floated off the roof leg supports or at the manufacturers recommended setting; and
- (6) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least ninety percent (90%) of the area of the opening.

#### D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-9-4]

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Pursuant to 326 IAC 8-9-4 VOC Storage tanks identified as T-103, T-201, T-202, T-204, T-207, T-209, T-401, T-801, T-802, T-803, T-804, T-805, T-806, T-808, T-809, T-810 are subject to this rule. Pursuant to this rule, the Permittee shall equip each tank with 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 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 others 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.
  - (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.
- (b) 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 following specifications:
  - (i) 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.
  - (ii) Except as provided in 326 IAC 8-9-5(c)(4), 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.
  - (iii) 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 326 IAC 8-9-5(c)(4).
  - (iv) 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.
  - (v) 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.
  - (vi) 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.
  - (vii) 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.
  - (viii) 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.
  - (ix) 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.
- (c) At the time of the next scheduled cleaning, but not later than ten (10) years after May 1, 1996, a closed vent system and control device meeting the following specifications:

- (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 40 CFR 60.485(b).
- (ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR 60.18) of the General Provisions.
- (d) A system equivalent to those described in paragraphs a, b and c as provided in 326 IAC 8-9-4.
- (e) The testing procedures are required under 326 IAC 8-9-5. The record keeping and reporting are required under 326 IAC 8-9-6.
- (f) On or before May 1, 1996, the Permittee of each vessel 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 eleven and one-tenth (11.1) psia shall equip each vessel with a closed vent system meeting the standards of paragraph (c).

Storage tanks, identified as T-205, T-206, T-208, T-240, T-807, T-1201, T-2102, T-2601, and T-2602 are not subject to 326 IAC 8-9-4, since each tank store VOL with a maximum true vapor pressure of less than 0.75 psia. Any change in the VOL stored with true vapor pressure of 0.75 psia or greater but less than 11.1 psia shall be subject entirely to the requirements of this condition, under 326 IAC 8-9-4.

### **Compliance Determination Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### **D.6.3 Testing and Procedures [326 IAC 8-9-5]**

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Pursuant to 326 IAC 8-9-5 VOC Storage tanks identified as T-103, T-201, T-202, T-204, T-207, T-209, T-401, T-801, T-802, T-803, T-804, T-805, T-806, T-808, T-809, and T-810 are subject to 326 IAC 8-9-5. Pursuant to this rule, the Permittee of each storage tank shall do the following:

- (a) Except as provided in section 326 IAC 8-9-4(a)(2), the Permittee of each vessel 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 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 Permittee 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 Permittee 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 326 IAC 8-9-6(c)(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 both primary and secondary seals:
    - (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 Permittee 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 (d) of this section is not planned and the Permittee could not have known about the inspection 30 days in advance or refilling the tank, the Permittee 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.
- (b) Except as provided in 326 IAC 8-9-4(a)(3), the Permittee 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 (c) 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 326 IAC 8-9-6(d)(3). 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 Permittee 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 Permittee 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 Permittee could not have known about the inspection thirty (30) days in advance of refilling the vessel, the Permittee 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.

Storage tanks, identified as T-205, T-206, T-208, T-240, T-807, T-1201, T-2102, T-2601, and T-2602 are not subject to 326 IAC 8-9-5, since each tank store VOL with a maximum true vapor pressure of less than 0.75 psia. Any change in the VOL stored with true vapor pressure of 0.75 psia or greater but less than 11.1 psia shall be subject entirely to the requirements of this condition, under 326 IAC 8-9-5.

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

### **D.6.4 Record Keeping Requirements [326 IAC 8-9-6]**

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The Permittee shall comply with the record keeping requirements in 326 IAC 8-9-6 for Tanks T-103, T-201, T-202, T-204, T-207, T-209, T-401, T-801, T-802, T-803, T-804, T-805, T-806, T-808, T-809, T-810 and shall maintain the following records for a minimum of three (3) years.

- (a) Pursuant to Condition D.1.3 and 326 IAC 8-9-6, the Permittee of the internal floating roof gasoline storage tanks shall keep copies of all reports and records for at least three (3) years. The Permittee of the internal floating roof tanks shall meet the following requirements:
  - (1) Keep a record of each inspection performed as required by 326 IAC 8-9-5(b)(1) through 326 IAC 8-9-5(b)(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 326 IAC 8-9-5(b)(2) are detected during the annual visual inspection, a record shall be maintained and a report shall be furnished to the department 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 326 IAC 8-9-5(b)(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 326 IAC 8-9-5(b)(3)(B), a record shall be maintained and a report shall be furnished to the department within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 326 IAC 8-9-4(a)(1)(A), 326 IAC 8-9-4(a)(2)(A), or 326 IAC 8-9-5(b), and list each repair made.
- (b) Pursuant to Condition D.1.3 and 326 IAC 8-9-6, the Permittee of the external floating roof gasoline storage tanks shall keep copies of all reports and records for at least three (3) years. The Permittee of the external floating roof tanks shall meet the following requirements:
  - (1) Keep a record of each gap measurement performed as required by 326 IAC 8-9-5(c). Each record shall identify the vessel in which the measurement was made and shall contain the date of measurement, the raw data obtained in the measurement and the calculations described in 326 IAC 8-9-5(c)(2) and (c)(3).
  - (2) Within sixty (60) days of performing the seal gap measurements required by 326 IAC 8-9-5(c)(1), furnish the department with a report that contains the date of measurement, the raw data obtained in the measurement, and the calculations described in 326 IAC 8-9-5(c)(2) and (c)(3).
  - (3) After each seal gap measurement that detects gaps exceeding the limitations specified in 326 IAC 8-9-5(c), 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.

- (c) Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain these records for the life of the vessel and shall submit to IDEM, OAQ a report containing the following information for biodiesel tanks BD-1 and BD-2:
  - (1) The vessel identification number.
  - (2) The vessel dimensions.
  - (3) The vessel capacity.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

## SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### EAST COLUMBUS DRIVE TERMINAL

- (ee) One (1) tank truck loading rack (identified as RACK) used to load gasoline, distillate, and ethanol, with a maximum loading capacity of 324,000 gallons of liquid per hour, constructed in 1940 and later reconstructed in 1979, controlled by one (1) natural gas fired Vapor Combustion Unit (VCU), rated at maximum heat input rate of 1.6 MMBtu/hr, installed in 1997, and exhausting through one (1) stack identified as VCU.
- (ff) One (1) VOC fractionator for separating gasoline and fuel oil of transmix tanks, identified as FRACT, venting 125 cubic feet of VOC vapor per minute during intermittent pressure relief with venting gas being controlled by VCU, and equipped with a 7.0 million British thermal units per hour natural gas fired reboiler;
- (gg) VOC emissions from the following operations:
  - (1) Fugitive VOC emissions from the loading rack, identified as FLRACK.
  - (2) Filter change out service for gasoline tanks, identified as FILT1.
  - (3) Meter proving service, identified as PROVE.

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

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

#### D.7.1 Hazardous Air Pollutants [326 IAC 2-4.1] [326 IAC 8-4-4]

The VOC capture efficiency from the loading rack will be 97.3% and the VOC emissions from the loading rack shall be less than 35 mg per liter of gasoline loaded by the loading rack.

Compliance with the above limit combined with potential single and combined HAP emissions from other emission units shall limit the source wide HAP emissions to less than 10 tons per year for any single HAP and less than 25 tons per year for combined HAPs; therefore, the requirements of 326 IAC 2-4.1 are not applicable to the loading rack.

#### D.7.2 Volatile Organic Compounds (VOC) [326 IAC 8-4-4]

Pursuant to 326 IAC 8-4-4, the Permittee shall not permit the loading of gasoline into any transport unless:

- (a) The gasoline loading equipment is equipped with a vapor control system in good working order, which will control VOC emissions to the atmosphere from the equipment being controlled to no more than 80 milligrams per liter of gasoline loaded.
- (b) Displaced vapors and gases are vented only to the vapor control system.
- (c) A means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- (d) All loading and vapor lines are equipped with fittings which make vapor-tight connections and which will be closed upon disconnection.

If employees of the owner of the source are not present during loading, it shall be the responsibility of the owner of the transport to make certain the vapor control system is attached to the transport. The owner of the source shall take all reasonable steps to insure that owners of transports loading at the terminal during unsupervised times comply with this rule.

#### D.7.3 Volatile Organic Compounds (VOC) [326 IAC 8-4-9]

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Pursuant to 326 IAC 8-4-9, the Permittee shall:

- (a) The Permittee, which owns and operates a vapor control system subject to this rule shall:
  - (1) Design and operate the applicable system and the gasoline loading equipment in a manner that prevents:
    - (A) gauge pressure from exceeding four thousand five hundred (4,500) pascals and a vacuum from exceeding one thousand five hundred (1,500) pascals in the gasoline tank truck;
    - (B) a reading equal to or greater than one hundred percent (100%) of the lower explosive limit (LEL, measured as propane) at two and five-tenths (2.5) centimeters from all points on the perimeter of a potential leak source when measured by the method referenced in Appendix B of Control of Organic Compound leaks from Gasoline Tank Trucks and Vapor Collection Systems, EPA 450/2-78-051, or an equivalent procedure approved by IDEM during loading or unloading operations; and
    - (C) avoidable visible liquid leaks during loading or unloading operations.
  - (2) Repair and retest a vapor collection or control system that exceeds the limits in (a)(1) within fifteen (15) days.
- (b) The permittee shall maintain records of all certification testing of the vapor balance or vapor control system which identify:
  - (1) the vapor balance, vapor collection or vapor control system,
  - (2) the date of the test and, if applicable, retest,
  - (3) the results of the test and, if applicable, retest.

The records shall be maintained in a legible, readily available condition for at least two (2) years after the date of the testing and, if applicable, retesting were completed.

- (c) If IDEM, OAQ allows alternative test procedures, then such method shall be submitted to the U.S. EPA as a SIP revision.
- (d) During compliance tests conducted under 326 IAC 3-6 (stack testing):
  - (1) each vapor balance or control system shall be tested applying the standards described in (a);
  - (2) testers shall use 40 CFR 60, Appendix A, Method 21 to determine if there are any leaks from the hatches and the flanges of the gasoline transports;

- (3) if any leak is detected, the transport cannot be used for the capacity of the compliance test of the bulk gas terminal.

The threshold for leaks shall be as follows:

- (A) Ten thousand (10,000) parts per million methane for all bulk gas terminals.

### **Compliance Determination Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### **D.7.4 VOC and HAPs [326 IAC 2-7-6(1),(6)]**

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The Vapor Combustion Unit (VCU) for VOC and HAPs control shall be in operation at all times, when the loading rack (RACK) is transferring gasoline or when the fractionator (FRACT) is venting vapor.

#### **D.7.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

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In order to demonstrate compliance with Conditions D.7.1 and D.7.2, the Permittee shall perform VOC testing at the vapor combustion unit (VCU) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

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

#### **D.7.6 Vapor Combustion Unit Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]**

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The Permittee shall install and maintain a monitor to detect the presence of a pilot flame. The presence of a pilot flame shall be monitored using a heat-sensing device at all times when the vapors are being vented to the VCU. The monitor shall be equipped with a computer system which will not allow for the operation of the loading rack and the fractionator (FRACT) when the presence of a flame is not detected during periods when gasoline vapors are being vented to the VCU.

#### **D.7.7 Monthly Visible Checks for Liquid Leaks [40 CFR Part 64]**

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- (a) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.
- (b) If abnormal leakage is observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.
- (c) All checks for visible liquid leaks made to comply with this condition shall be conducted in accordance with 326 IAC 8-4-9.

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

#### **D.7.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of all the required parameters listed in Condition D.2.3.
- (b) To document compliance with Condition D.2.7, the Permittee shall maintain records of

monthly checks for liquid leaks of the Loading Rack and VCU stack exhaust.

- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

**SECTION E.1**

**NSPS**

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

**INDIANAPOLIS BOULEVARD TERMINAL**

- (a) Two (2) internal floating roof above ground storage tanks (Tank 134 and Tank 135) used to store petroleum products, constructed July 17, 1998. Each tank is equipped with a primary and secondary seal. Each tank has a maximum design capacity of 5,040,000 gallons.
- (b) One (1) existing fixed roof tank, constructed in 1941 and modified July 17, 1998, into a new internal floating roof above ground storage tank (Tank 151) used to store petroleum products. The tank is equipped with a primary and secondary seal, and has a maximum design capacity of 5,040,000 gallons.
- (c) One (1) new internal floating roof (IFR) storage tank, identified as tank 136 approved in 2015 for construction with a maximum capacity of 131,600 barrel (131.6 kbbbl) permitted to store Gasoline, Bakken Crude, Ethanol and Distillate (RVP13 products or lower);
- (d) One (1) new vertical fixed roof storage tank (VFRT), identified as tank 137 approved in 2015 for construction with a maximum capacity of 217,500 barrel (217.5 kbbbl) permitted to store distillate fuel oils.

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

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

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the tanks 136 and 137, except as otherwise specified in 40 CFR Part 60, Subpart Kb.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

**E.1.2 Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced July 23, 1984 Requirements [40 CFR Part 60, Subpart Kb] [326 IAC 12]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Kb (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for tanks 136 and 137.

- (1) 40 CFR 60.110b;
- (2) 40 CFR 60.111b;
- (3) 40 CFR 60.112b;
- (4) 40 CFR 60.113b;
- (5) 40 CFR 60.114b;

- (6) 40 CFR 60.115b;
- (7) 40 CFR 60.116b;
- (8) 40 CFR 60.117b.

## SECTION E.2

## NESHAP

### Emissions Unit Description:

#### INDIANAPOLIS BOULEVARD TERMINAL

- (a) Ten (10) vertical domed internal floating roof storage tanks used to store petroleum products, constructed between 1935 and 1957, each tank is equipped with a primary and secondary seal:
- (1) Tank 106 has a maximum design capacity of 1,054,484 gallons;
  - (2) Tank 107 has a maximum design capacity of 1,031,884 gallons;
  - (3) Tank 108 has a maximum design capacity of 1,054,783 gallons;
  - (4) Tank 112 has a maximum design capacity of 2,075,798 gallons;
  - (5) Tank 120 has a maximum design capacity of 2,853,291 gallons;
  - (6) Tank 123 has a maximum design capacity of 2,818,841 gallons;
  - (7) Tank 130 has a maximum design capacity of 3,915,368 gallons;
  - (8) Tank 131 has a maximum design capacity of 3,915,368 gallons;
  - (9) Tank 132 has a maximum design capacity of 3,915,368 gallons;
  - (10) Tank 133 has a maximum design capacity of 3,915,368 gallons.
- (b) Two (2) internal floating roof above ground storage tanks (Tank 134 and Tank 135) used to store petroleum products constructed July 17, 1998. Each tank is equipped with a primary and secondary seal. Each tank has a maximum design capacity of 5,040,000 gallons.
- (c) One (1) existing fixed roof tank, constructed in 1941 and modified July 17, 1998, into a new internal floating roof above ground storage tank (Tank 151) used to store petroleum products. The tank is equipped with a primary and secondary seal, and has a maximum design capacity of 5,040,000 gallons.
- (d) One (1) vertical fixed roof cone storage tank (Tank 150), constructed in 1941, used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68°F. The tank has a maximum design capacity of 3,382,609 gallons.

#### EAST COLUMBUS DRIVE TERMINAL

- (h) One (1) 813,624 gallon external floating roof gasoline storage tank, identified as T-201, with primary and secondary seals, constructed in 1939.
- (i) One (1) 653,100 gallon external floating roof gasoline storage tank, identified as T-202, with primary and secondary seals, constructed in 1939.
- (j) Two (2) 2,956,380 gallon gasoline storage tanks, identified as T-801 and T-802, both-with primary and secondary seals, constructed in 1939. Tank T-801 is an external floating roof tank. Tank T-802 is a domed internal floating roof tank, dome added in 2010.

- (k) One (1) 2,759,316 gallon external floating roof gasoline storage tank, identified as T-803, with primary and secondary seals, constructed in 1939.
- (l) One (1) 2,853,732 gallon external floating roof gasoline storage tank, identified as T-804, with primary and secondary seals, constructed in 1939.
- (m) One (1) 3,055,542 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-805, with primary and secondary seals, constructed in 1939, dome added in 2010.
- (n) One (1) 2,843,274 gallon external floating roof gasoline storage tank, identified as T-806, with primary and secondary seals, constructed in 1939.
- (o) One (1) 616,938 gallon internal floating roof gasoline storage tank, identified as T-204, with a primary seal, constructed in 1939.
- (p) One (1) 630,000 gallon internal floating roof gasoline storage tank, identified as T-207, with a primary seal, constructed in 1946.
- (q) One (1) 696,695 gallon internal floating roof gasoline/transmix (a gasoline/distillate oil mixture) storage tank, identified as T-209, with a primary seal, constructed in 1946.
- (r) One (1) 739,830 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-208, constructed in 1946.
- (s) One (1) 964,824 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-240, constructed in 1968.
- (t) One (1) 8,633,646 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2101, constructed in 1955.
- (u) One (1) 8,618,190 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2102, constructed in 1955.
- (v) One (1) 10,847,382 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2601, originally constructed in 1960 and later modified in 2002.
- (w) One (1) 10,835,328 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-2602, originally constructed in 1960 and later modified in 2002.
- (x) Two (2) 635,040 gallon vertical fixed roof distillate/kerosene storage tanks, identified as T-205 and T-206, constructed in 1939.
- (y) One (1) 3,410,988 gallon vertical fixed roof distillate/kerosene storage tank, identified as T-807, constructed in 1939.
- (z) One (1) 2,000 gallon horizontal fixed roof gasoline additive storage tank, identified as T-1508 and one (1) 500 gallon horizontal fixed-roof jet fuel additive storage tank, identified T-1509, approved in 2014 to replace two (2) existing additive storage tanks (T-1501 and T-1502).
- (aa) One (1) 1,465,002 gallon domed internal floating roof gasoline storage tank, identified as T-401, with a primary seal, constructed in 1952.
- (bb) Two (2) 2,857,890 gallon domed internal floating roof gasoline storage tanks, identified as T-809

and T-810, each with a primary seal, both constructed in 1952.

- (cc) One (1) 2,841,552 gallon domed internal floating roof gasoline/transmix storage tank, identified as T-808, with a primary and seal, constructed in 1952.
- (dd) Gasoline tank cleaning operation, identified as TNKCLN GAS.
- (ee) One (1) new internal floating roof (IFR) storage tank, identified as tank 136 approved in 2015 for construction with a maximum capacity of 131,600 barrel (131.6 kbbbl) permitted to store Gasoline, Bakken Crude, Ethanol and Distillate (RVP13 products or lower);
- (ff) One (1) new vertical fixed roof storage tank (VFRT), identified as tank 137 approved in 2015 for construction with a maximum capacity of 217,500 barrel (217.5 kbbbl) permitted to store distillate fuel oils;
- (gg) One (1) tank truck loading rack (identified as RACK) used to load gasoline, distillate, and ethanol, with a maximum loading capacity of 324,000 gallons of liquid per hour, constructed in 1940 and later reconstructed in 1979, controlled by one (1) natural gas fired Vapor Combustion Unit (VCU), rated at maximum heat input rate of 1.6 MMBtu/hr, installed in 1997, and exhausting through one (1) stack identified as VCU.
- (hh) One (1) VOC fractionator for separating gasoline and fuel oil of transmix tanks, identified as FRACT, venting 125 cubic feet of VOC vapor per minute during intermittent pressure relief with venting gas being controlled by VCU, and equipped with a 7.0 million British thermal units per hour natural gas fired reboiler;
- (ii) VOC emissions from the following operations:
  - (1) Fugitive VOC emissions from the loading rack, identified as FLRACK.
  - (2) Filter change out service for gasoline tanks, identified as FILT1.
  - (3) Meter proving service, identified as PROVE.
- (jj) A wastewater handling and treatment system, capable of treating 420,000 gallons of contaminated water per hour, including the following activities:
  - (1) Five (5) sumps for wastewater from tank water draw and roof drains;
  - (2) One (1) sump for wastewater from loading rack;
  - (3) One (1) 379,638 gallon internal floating roof waste water/gasoline storage tank, identified as T-103, constructed in 1939;
  - (4) One (1) dissolved air floatation oil/water separator, identified as TS DAF, with a maximum capacity of 12,000 gallons per hour;
  - (5) One (1) oil/water separator, identified as TS OWS/Separator No. 1, with a maximum capacity of 11,000 gallons per hour; and
  - (6) One (1) air stripper capable of processing a maximum of 23,000 gallons of water per hour.

Insignificant Activities: EAST COLUMBUS DRIVE TERMINAL

- (a) Five (5) vertical fixed roof cone storage tanks used to store petroleum distillates with a maximum true vapor pressure of 0.019 psia at 68°F, constructed in 1941 [326 IAC 8-9]:
- (1) Tank 103 has a maximum design capacity of 836,368 gallons;
  - (2) Tank 122 has a maximum design capacity of 2,853,291 gallons;
  - (3) Tank 140 has a maximum design capacity of 3,382,609 gallons;
  - (4) Tank 141 has a maximum design capacity of 3,382,609 gallons;
  - (5) Tank 142 has a maximum design capacity of 3,382,609 gallons.
- (b) Two (2) horizontal distillate additive tanks, constructed in 2005:
- (1) Tank AT-01 has a maximum design capacity of 12,000 gallons;
  - (2) Tank AT-02 has a maximum design capacity of 12,000 gallons.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements  
[326 IAC 2-7-5(1)]**

**E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart BBBBBB.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

**E.2.2 National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities [40 CFR Part 63, Subpart BBBBBB]**

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart BBBBBB (included as Attachment B to this permit), which are incorporated as 326 IAC 20-1-1, for the emission unit(s) listed above:

- (1) 40 CFR 63.11080
- (2) 40 CFR 63.11081(a)
- (3) 40 CFR 63.11082(a)
- (4) 40 CFR 63.11083
- (5) 40 CFR 63.11085(a)

- (6) 40 CFR 63.11087
- (7) 40 CFR 63.11088
- (8) 40 CFR 63.11089
- (9) 40 CFR 63.11092(a), (b)
- (10) 40 CFR 63.11093
- (11) 40 CFR 63.11094
- (12) 40 CFR 63.11095
- (13) 40 CFR 63.11098
- (14) 40 CFR 63.11099
- (15) 40 CFR 63.11100
- (16) Table 1 to Subpart BBBBBB of Part 63—Applicability Criteria, Emission Limits, and Management Practices for Storage Tanks
- (17) Table 2 to Subpart BBBBBB of Part 63—Applicability Criteria, Emission Limits, and Management Practices for Loading Racks
- (18) Table 3 to Subpart BBBBBB of Part 63—Applicability of General Provisions

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320

**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:

- Annual Compliance Certification Letter
- Test Result (specify): \_\_\_\_\_
- Report (specify): \_\_\_\_\_
- Notification (specify): \_\_\_\_\_
- Affidavit (specify): \_\_\_\_\_
- Other (specify): \_\_\_\_\_

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320

**This form consists of 2 pages**

**Page 1 of 2**

<input type="checkbox"/>	This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), no later than four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance and Enforcement Branch); and</li><li>• The Permittee must submit notice in writing or by facsimile no later than two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.</li></ul>
--------------------------	--

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

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

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

**Page 2 of 2**

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**Part 70 Quarterly Report**

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320  
Facility: Tank 134, Tank 135, and Tank 151  
Parameter: VOC Usage  
Limit: Less than the combined total of 677,663,000 gallons petroleum products per 12 consecutive month period

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Usage for This Month (gallons)	VOC Usage for Previous 11 Months (gallons)	VOC Usage for 12-Month Period (gallons)
1			
2			
3			

- No deviation occurred in this quarter.
- Deviations occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_



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

### Part 70 Quarterly Report

Source Name: Buckeye Terminals, LLC  
 Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
 Part 70 Permit No.: T089-33112-00320  
 Facility: Sphere 2  
 Parameter: VOC Emissions  
 Limit: Full Ventdown: 1.38 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.  
 Depressurization: 2.39 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

$$E_S = (M_S \times EV_S) \times (1.0 - VCU \text{ DRE}) / 2000 \text{ lb/ton}$$

Where  $E_S$  = VOC Emissions, tons/month  
 $M_S$  = Mass removed, lb/event  
           = 137,563 lb/ sphere full ventdown event  
           = 29,830 lb/ sphere pressure bleedoff event  
 $EV_S$  = Number of Events, events/month  
 VCU DRE = VOC Removal Efficiency, %, as determined during the most recent valid compliance demonstration

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Emissions for This Month (tons)		VOC Emissions for Previous 11 Months (tons)		VOC Emissions for 12-Month Period (tons)	
	full ventdown	depressurization	full ventdown	depressurization	full ventdown	depressurization
1						
2						
3						

- No deviation occurred in this quarter.
- Deviations occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

## Part 70 Quarterly Report

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320  
Facility: Propylene Rail Loading Rack  
Parameter: VOC Emissions  
Limit: 16.22 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

$$E_R = (M_R \times EV_R) \times (1.0 - VCU \text{ DRE}) / 2000 \text{ lb/ton}$$

Where  $E_R$  = VOC Emissions, tons/month  
 $M_R$  = Mass removed, lb/event  
          = 2,046 lb/ railcar bleedoff event  
 $EV_R$  = Number of Events, events/month  
VCU DRE = VOC Removal Efficiency, %, as determined during the most recent valid compliance demonstration

**QUARTER:**   -----                   **YEAR:**                   \_\_\_\_\_

Month	VOC Emissions for This Month (tons)	VOC Emissions for Previous 11 Months (tons)	VOC Emissions for 12-Month Period (tons)
1			
2			
3			

- No deviation occurred in this quarter.
- Deviations occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

### Part 70 Quarterly Report

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320  
Facility: Line Purging  
Parameter: VOC Emissions  
Limit: 0.35 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

$$E_p = (M_p \times EV_p) \times (1.0 - \text{VCU DRE}) / 2000 \text{ lb/ton}$$

Where  $E_p$  = VOC Emissions, tons/month  
 $M_p$  = Mass removed, lb/event  
= 8,774 lb/ line purging event  
 $EV_p$  = Number of Events, events/month  
VCU DRE = VOC Removal Efficiency, %, as determined during the most recent valid compliance demonstration

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Emissions for This Month (tons)	VOC Emissions for Previous 11 Months (tons)	VOC Emissions for 12-Month Period (tons)
1			
2			
3			

- No deviation occurred in this quarter.
- Deviations occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Buckeye Terminals, LLC  
Source Address: 3823 Indianapolis Boulevard, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-33112-00320

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked “No deviations occurred this reporting period”.

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

Buckeye Terminals  
400 East Columbus Drive  
East Chicago, Indiana 46312

Affidavit of Construction

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_  
(Company Name)
4. I hereby certify that Buckeye Terminals 400 East Columbus Drive, East Chicago, Indiana 46312, completed construction of the a stationary pipeline breakout tank farm & bulk liquid fuel storage & transfer on in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on ***Reviewer: Insert date application received at IDEM*** and as permitted pursuant to New Source Construction Permit and Part 70 Operating Permit No. T089-36461-00320, Plant ID No. 089-00320 issued on \_\_\_\_\_.
5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature \_\_\_\_\_  
Date \_\_\_\_\_

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of Indiana  
on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. My Commission expires: \_\_\_\_\_.

Signature \_\_\_\_\_  
Name \_\_\_\_\_ (typed or printed)

**Indianapolis Blvd. Terminal - Propylene Storage and Loading facility, permitted in SSM No. 30669-00320, issued on December 22, 2011**

Uncontrolled Potential To Emit (ton/yr)								
Process / Emission Unit	GHGs	CO	NO <sub>x</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC
Sphere 1 - full ventdown	0	0	0	0	0	0	0	68.78
Sphere 1 - depressure	0	0	0	0	0	0	0	119.32
Sphere 1 - breathing losses	0	0	0	0	0	0	0	1.00
Sphere 2 - full ventdown	0	0	0	0	0	0	0	68.78
Sphere 2 - depressure	0	0	0	0	0	0	0	119.32
Sphere 1 - breathing losses	0	0	0	0	0	0	0	1.00
Rail Loading Rack	0	0	0	0	0	0	0	811.20
Line Purging (both halves)	0	0	0	0	0	0	0	17.55
Propylene Disconnect Calculation	0	0	0	0	0	0	0	0.16
Emissions from Fugitive Leaks	0	0	0	0	0	0	0	62.14
Emissions Resulting from Control Programs	17,764	19.77	3.63	0.85	0.85	0.85	0.0053	0
<b>Totals:</b>	<b>17,764</b>	<b>19.77</b>	<b>3.63</b>	<b>0.85</b>	<b>0.85</b>	<b>0.85</b>	<b>0.0053</b>	<b>1,269.25</b>

Limited Potential To Emit (ton/yr)								
Process / Emission Unit	GHGs	CO	NO <sub>x</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC
Sphere 1 - full ventdown	0	0	0	0	0	0	0	1.38
Sphere 1 - depressure	0	0	0	0	0	0	0	2.39
Sphere 1 - breathing losses	0	0	0	0	0	0	0	1.00
Sphere 2 - full ventdown	0	0	0	0	0	0	0	1.38
Sphere 2 - depressure	0	0	0	0	0	0	0	2.39
Sphere 1 - breathing losses	0	0	0	0	0	0	0	1.00
Rail Loading Rack	0	0	0	0	0	0	0	16.22
Line Purging (both halves)	0	0	0	0	0	0	0	0.35
Propylene Disconnect Calculation	0	0	0	0	0	0	0	0.16
Emissions from Fugitive Leaks	0	0	0	0	0	0	0	2.80
Emissions Resulting from Control Programs	17,764	19.77	3.63	0.85	0.85	0.85	0.0053	0
<b>Totals:</b>	<b>17,764</b>	<b>19.77</b>	<b>3.63</b>	<b>0.85</b>	<b>0.85</b>	<b>0.85</b>	<b>0.0053</b>	<b>29.06</b>

PSD Significant Threshold	75,000	100	40	25	15	NA	40	*40
Emission Offset and Nonattainment NSR Major Source Threshold	NA	NA	NA	NA	NA	100	NA	*100

Propylene or methylene is not an EPA listed HAP.

Note: \* This existing stationary source was determined to be major for PSD because the emissions of VOC, an attainment pollutants at that time (Lake County was re-designated to attainment status for the 8-hour ozone in May 11, 2010), are greater than one hundred (>100) tons per year, and it is in one of the twenty-eight (28) listed sources. U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, has designated Lake as nonattainment for ozone. On issued an emergency August 1, 2012 the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective, August 9, 2012.

Tank breathing losses will be minimal; therefore, a conservative estimate of 1 ton per year will be used to estimate breathing losses from each sphere.

Indianapolis Blvd. Terminal

**Ventdown, Pressure Bleedoff, and Line Purging**

	Full Ventdown	Pressure Bleedoff	Railcar Bleedoff	Line Purging (each half of line)	Units	Methodology
Design molecule	Propylene C <sub>3</sub> H <sub>6</sub>	Ethane C <sub>2</sub> H <sub>6</sub>	Propylene C <sub>3</sub> H <sub>6</sub>	Propylene C <sub>3</sub> H <sub>6</sub>		
V, Capacity	20,144 846,048	20,144 846,048	987 41,448	1,477 62,046	bbl gallons	= Capacity (bbl) x Barrel Volume (gal/barrel)
	113,093	113,093	5,540	8,294	cubic feet	= Capacity (gal) / 7.481 gal/ft <sup>3</sup>
P Initial	150 164.7	250 264.7	50 64.7	150 164.7	psig psia	= P (psig) + 14.7
P Final	-14.7 0	200 214.7	0 14.7	0 14.7	psig psia	
R	10.73				psia-ft <sup>3</sup> /(R-lb-mol)	
T	70 530	70 530	70 530	95 555	F R	= T (deg F) + 460
MW	42	30	42	42	lb/lb-mol	P V = n R T
m @ initial pressure	137,563	157,919	2,647	9,634	lb/event	m (lb) = n x MW = MW (lb/lb-mol) x P <sub>initial</sub> (psia) x V (ft <sup>3</sup> ) / (R {psia-ft <sup>3</sup> /(deg R-lb-mol)}) x T (deg R)
m @ final pressure	0	128,089	601	860	lb/event	m (lb) = n x MW = MW (lb/lb-mol) x P <sub>final</sub> (psia) x V (ft <sup>3</sup> ) / (R {psia-ft <sup>3</sup> /(deg R-lb-mol)}) x T (deg R)
Total Mass Removed	137,563	29,830	2,046	8,774	lb/event	= m @ P <sub>initial</sub> - m @ P <sub>final</sub>
				17,548	lb/event (both sides)	
<b>Event Length and Frequency</b>						
Time Elapsed per Event	72	96	1	6	hr/event	
Planned Events Per Year	1	8	793	2		1 full ventdown event per sphere per year; 8 pressure bleedoff events per sphere per year
VCU DRE	98.0%	98.0%	98.0%	98.0%		
VOC Emissions	2,751.27	596.60	40.92	175.48	lb/event, controlled	= Total Mass Removed (lb/event) x (1 - VCU DRE (%))
	1.38	0.30	0.02	0.09	ton/event, controlled	= Emissions (lb/event) / 2000 lb/ton
	1.38	2.39	16.22	0.18	ton/yr, controlled	= Emissions (ton/event) x Events per Year
<b>Heat Loading to VCUs</b>						
HHV	19,800	22,400	19,800	19,800	BTU/lb	
Heat Loading to VCU	2,724	3,537	52.42	191	MMBTu/event	= m @ P <sub>initial</sub> (lb/event) x HHV (Btu/lb) / 1000000 Btu/MMBTu
	37.83	36.85	52.42	31.79	MMBTu/hr	= Heat Loading to VCU (MMBTu/event) / Time elapsed per Event (hr/event)
Device Capacity	42.20	42.20	80.96	42.20	MMBTu/hr	Railcar Bleedoff Capacity is calculated as "Heat Load left for other purposes" on the following pages 42.2 MMBtu/hr is the Johns, Inc. nameplate capacity of the unit that is owned by Buckeye and will be transferred to this new location (as needed).
<b>Supplemental Fuel (only for starting and ending the combustion event)</b>						
Heat Loading for Pilot Flame	1.0	1.0	1.0	1.0	MMBTu/hr	
<b>Combustion Airflows (only used to estimate particulate emissions)</b>						
Combustion Air Ratio	2	2	2	2	ft <sup>3</sup> /MMBTu	
Exhaust Flow Rate	4,540	4,422	6,290	3,815	CFM	= Heat Loading to VCU (MMBTu/hr) x Combustion Air Ratio (ft <sup>3</sup> /MMBTu) x 60 min/hr

**Unrestricted Potential To Emit**

Emissions	AP-42 lb/MMBTU	Full Ventdown (per Sphere)			Sphere Depressure (per Sphere)			Rail Loading Rack			Line Purging (both halves)			Total Emissions (tons/yr)
		(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	
VOC	DRE	137,563	137,563	68.78	29,830	238,639	119.32	2,046	1,622,392	811.20	17,548	35,096	17.55	1,017

**Emissions Resulting from Control Programs**

Combustion Emissions	AP-42 lb/MMBTU	Full Ventdown (per Sphere)			Sphere Depressure (per Sphere)			Rail Loading Rack			Line Purging* (both halves)			Total Emissions (tons/yr)
		(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	(lb/event)	(lb/yr)	(tons/yr)	
CO	0.37	1,034	1,034	0.52	1,344	10,755	5.38	19.76	15,673	7.84	145.60	291.19	0.1456	19.77
NO <sub>x</sub>	0.068	190.11	190	0.10	247.07	1,977	0.99	3.63	2,881	1.44	26.76	53.52	0.0268	3.63
PM	40 ug/l	48.87	49	0.02	65.16	521	0.26	0.68	538	0.27	8.15	16.29	0.0081	0.85
SO <sub>2</sub>	0.0001	0.2796	0.2796	0.0001	0.3633	2,9067	0.0015	0.0053	4,2361	0.0021	0.0394	0.08	0.0000	0.0053
VOC	DRE	2,751	2,751	1.38	596.60	4,773	2.39	40.92	32,448	16.22	350.96	701.93	0.35	24.10
CO <sub>2</sub>	120	335,490	335,490	168	436,007	3,488,055	1,744	6,410	5,083,277	2,542	47,220	94,441	47.22	6,412
CH <sub>4</sub>	0.0023	6.43	6.43	3.22E-03	8.36	66.85	3.34E-02	1.23E-01	97.43	4.87E-02	0.91	1.81	9.05E-04	1.23E-01
N <sub>2</sub> O	0.0022	6.15	6.15	3.08E-03	7.99	63.95	3.20E-02	1.18E-01	93.19	4.66E-02	0.87	1.73	8.66E-04	1.18E-01
Control device/control program:		to portable VCU			to portable VCU			to existing VCU			to portable VCU			

Company Name: Buckeye Terminals  
 Address: 400 East Columbus Drive, East Chicago, Indiana 46312  
 TV Renewal No. T089-37345-00320  
 Reviewer: Amal Agharkar  
 Date: August 3, 2016

**Assumptions and Notes:**

Combustion calculations based on AP-42 Section 13.5 (1991). Particulates based on a "lightly smoking" flare because this is the best comparison for the VCU operations.  
 VOC destruction set at 98% for combustion per 40 CFR 60.18/40 CFR 63.11.  
 Sulfur set at minimal levels to not ignore potential emissions, far below typical fuel sulfur contents. The combustion sulfur factor is estimated.  
 Disconnect losses assume that vapors in the lines are lost to emissions  
 Device capacity assumes using Buckeye's John Zink PCES 6 VCU (42.4 mmBTU/hr capacity)

GHGs:	Tons	GWP	CO <sub>2</sub> e	CO <sub>2</sub> e Factor
CO <sub>2</sub>	6,412	1	6,412	6,412
CH <sub>4</sub>	0.1229	21	2.58	54.20
N <sub>2</sub> O	0.1176	310	36.44	11,298
Total			6,451	17,764

**Emission Summary**

Full Ventdown - Evacuation of the entire contents of the sphere through the portable vapor combustion unit on an as needed basis for internal inspection or maintenance.  
 One full ventdown event per tank per year is included in the emission estimate as a worst case emission level.  
 Sphere Depressure - Evacuation of the light materials (i.e. ethane) that are entrained in the incoming propylene and which accumulate over time at the top of the sphere.  
 The ethane will be bled off through the portable combustion unit several times per year as warranted. Eight sphere depressure events per year are assumed.  
 Since the depressure events are likely to include some propylene, the depressure event emissions are calculated assuming 100% VOC even though ethane is not a VOC.  
 Rail Rack - As the railcars are filled, any vapors present from the previous load will be displaced and routed to the existing vapor combustor.  
 Line purging - Intermittent line purging to conduct inspection or maintenance routed through the existing vapor combustor or portable vapor combustor.  
 Propylene Loading - Emission of propylene upon disconnection based on the amount that is present in the length of pipe or flexible hose between the last valve and the car.  
 Equipment leaks - fugitive emissions from components in propylene service, see calculations below.

**Methodology**

CO, NO<sub>x</sub>, & SO<sub>2</sub> Emissions from control programs (lb/event) = Emission Factor (lb/MMBtu) x { Heat Loading to VCU (MMBtu/hr) + Heat Loading for Pilot Flame (MMBtu/hr) } x Time Elapsed per Event  
 PM Emissions from control programs (lb/event) = { Emission Factor (ug/L) / 4.54e+8 ug/lb } x Exhaust Flow Rate (ft3/min) x 3.781 L/gal x 7.481 gal/ft3 x Time Elapsed per Event (hr/event) x 60 min/hr  
 Uncontrolled VOC Emissions (lb/event) = Total Mass Removed [ m = (MW x P x V) / (R x T) ]  
 VOC Emissions from control programs (lb/event) = Total Mass Removed (lb/event) x ( 1 - VCU DRE (%) )  
 CO, NO<sub>x</sub>, & SO<sub>2</sub> Emissions from control programs (lb/yr) = Emission Factor (lb/MMBtu) x { Heat Loading to VCU (MMBtu/hr) + Heat Loading for Pilot Flame (MMBtu/hr) } x 8760 hr/yr  
 PM Emissions from control programs (lb/yr) = { Emission Factor (ug/L) / 4.54e+8 ug/lb } x Exhaust Flow Rate (ft3/min) x 3.781 L/gal x 7.481 gal/ft3 x 8760 hr/yr x 60 min/hr  
 Uncontrolled VOC Emissions (lb/yr) = Emissions (lb/event) x Maximum Possible No. Events per Year (i.e., 8760 hr/yr)  
 Controlled Emissions (lb/yr) = Emissions (lb/event) x Events per Year

\*Line Purging Emissions are doubled because there are 2 halves of the line to be purged.

Emissions (ton/yr) = Emissions (lb/yr) / 2000 lb/ton

**Windows and Flares**

Design molecule:	Sphere		Rallier		Purging		Partial		Line	
	Full Ventflow	Pressure	Pressure	Pressure	inch	half of level	Rallier	Rallier	Purging	Purging
	Butylene	Butylene	Butylene	Butylene	Butylene	Butylene	Butylene	Butylene	Butylene	Butylene
Capacity:	20,144	20,144	907	1,477	907	907	907	907	907	907
	866,048	846,096	41,448	62,046	gallons	41,448	41,448	147	37	gallons
	113,099	113,099	5,540	8,294	cubic feet	5,540	5,540	20	5	cubic feet
Initial Pressure:	25	25	25	25	psig	25	25	25	25	psig
Final Pressure:	18.7	18.7	18.7	18.7	psia	18.7	18.7	18.7	18.7	psia
	-14.7	20	0	0	psig	0	0	0	0	psig
	0	14.7	14.7	14.7	psia	14.7	14.7	14.7	14.7	psia
R:	10.71	10.71	10.71	10.71	psia-8.33(9-R)	10.71	10.71	10.71	10.71	psia-8.33(9-R)
T:	30	30	30	30	F	30	30	30	30	F
	530	530	530	530	R	530	530	530	530	R
MW:	58	58	58	58	lb/ft-min	58	58	58	58	lb/ft-min
n = PV(MT) mm(MW)MW/PV (BT) @ final pressure	45,791	45,791	2,243	3,207	seconds err	2,243	2,243	8	2	pounds per event
Total Mass Removed	45,791	45,791	2,243	3,207	pounds per event	2,243	2,243	8	2	pounds per event
Event Length and Frequency:										
Time:	72	96	1	6	hours	1	1	36	36	hours
Events Per Year:	2	8	793	2		793	793	104	104	
VOC DFE:	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	0.00%	0.00%	
	915.8	115.3	28.3	40.4	seconds err	0.000%	0.000%	1.0	1.0	pounds per event, controlled
	0.46	0.06	0.01	0.02	tons per year	0.000%	0.000%	0.00	0.00	tons per year, controlled
	0.92	0.46	11.20	0.02	tons per year	0.000%	0.000%	0.26	0.07	tons per year, controlled
Heat Loading to Flare:										
	19800	23400	29800	23400	BTU/lb					
	907	1026	44	72	mmBTU/event					
	13	11	44	12	mmBTU/hr					
	42	42	72	42	mmBTU/hr					
Low Nitro Burner Efficiency:	0%	0%	0%	0%						
Supplemental Fuel:										
Pilot:	1	1	1	1	mmBTU/hr					
Flare Airflow (only used to estimate particulate emissions):										
Heat Loading to VCU:	12.50	10.68	44.42	11.97	mmBTU/hr					
Combustion Air Ratio:	120	120	120	120						
Exhaust Estimate:	1511	1282	1320	1497	CFM					

**Potential To Burn**

Component	AP-42	Full Ventflow		Sphere Depressure		Rallier Depressure		Line Purging		Purging Limited		Equipment Leaks		Exhaust		Process Threshold		TSD Threshold
		lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	
Butylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Assumptions and Notes:**

- Flare calculations based on AP-42 Section 1.5.5 (2011). Particulates based on a "lightly smoking" flare.
- Thermal oxidizer calculations based on AP-42 Section 1.5 (2006).
- VOC destruction set at 98% for flares per 40 CFR 61.16/60 CFR 63.11.
- Higher DFE for thermal oxidizers may be entered into spreadsheet.
- DFE for the rallier can be set separately from DFE for the sphere ventflow and depressure cases.
- Sulfur set at minimal levels to not ignore potential emissions, but below typical fuel sulfur contents. The flare sulfur factor is estimated.
- Low Nitro burners will be required.
- Distances listed assume that vapors in the lines are lost to emissions.
- Device capacity assumes using Buckeye's John Zink PCS 6 VCU (42.4 mmBTU/hr capacity)

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**VCU Capacity Calculations**

Inlet Pressure	12 in H <sub>2</sub> O
Minimum Operating temperature	1,400 F
Maximum Operating temperature	2,000 F
# of rack loading spots	4
# of trucks loaded per hour/rack	4
Average Truck Load Capacity	8,000 gal/truck load
	1,069.38 ft <sup>3</sup> /truck trailer

**Abbreviations:**

HC = hydrocarbon  
 LHV = lower heating value  
 VCU = vapor control unit  
 CFM = cubic feet per minute  
 MMBtu = million British thermal units  
 F = degrees Fahrenheit

Organic Vapor Loss Rate 32.0 lb organic/load

**Assumptions/Methodology:**

Expected HC concentration in stream	40%	Gasoline loading today (as VOC); Estimated by Buckeye Terminals (based on the standard used for gasoline based on molecular weight ratios of gasoline to propylene).
Expected air concentration of HC	60%	Standard design basis for gasoline loading racks GACT/MACT.
Max waste gas flow rate	936.0 CFM	Standard design basis for gasoline loading racks GACT/MACT.
Max HC content	42.2%	Displacement of vapors as vessel is filled.
Max LHV	1,624 BTU/scf	Design specification of the device.
Max Heating Capacity of Load	91.20 MMBTU/hr	Design specification of the device.
Density of gasoline vapors	0.160 lb/ft <sup>3</sup>	Max Heating Capacity of Load (MMBTU/hr) = Max LHV/1000000 x Max waste gas flow rate x 60 min/hr
Volumetric Flowrate of gasoline vapors	199.67 ft <sup>3</sup> /load	calculated on the following pages
	3,194.75 ft <sup>3</sup> /hr	Vol. gas vapors (ft <sup>3</sup> /load) = Organic Vapor Loss Rate (lb Org./load) / Density of gas vapors (lb/ft <sup>3</sup> )
	53.25 CFM	Volumetric Flowrate of gas vapors (ft <sup>3</sup> /hr) = Vol. gas vapors (ft <sup>3</sup> /load) x No. trucks per loading rack x No. of loading racks = 199.67 x 4 x 4
Expected VCU Header Flow Rate	133.11 CFM	Volumetric Flowrate of gas vapors (CFM) = Volumetric Flowrate of gas vapors (ft <sup>3</sup> /hr) / 60 min/hr
Flow Capacity (minus VCU Header)	802.89 CFM	Expected VCU Header Flow Rate (CFM) = Vol. gas vapors (CFM) / Expected HC conc. (%) = 53.25 CFM / 40%
Flow from Railcar Bleedoff	92.34 CFM	Flow Capacity (minus VCU Header) (CFM) = Max waste flow rate - Expected VCU Header flow rate = 936 CFM - 133.11 CFM
Minimum Dilution Air Requirement	126.47 CFM (at max HC content)	Flowrate from Railcar Bleedoff (CFM) = Railcar Bleedoff Rate for propylene (ft <sup>3</sup> /hr) / 60 min/hr = 5540 ft <sup>3</sup> /hr / 60 min/hr
Total Flow From Railcar Venting	218.81 CFM	Minimum Dilution Air Requirement (CFM) = Railcar Bleedoff Rate for propylene (CFM) / (Max HC Content (%) - Railcar Bleedoff Rate for propylene (CFM)) = 92.34 / 42.2% - 92.34
Remaining Flow Capacity after Railcar Venting	584.07 CFM	Total Flow From Railcar Venting (CFM) = Flow from Railcar Bleedoff (CFM) + Minimum Dilution Air Requirement (CFM) = 126.47 + 92.34
Heat Value of Gasoline Vapors	20,000 BTU/lb	Remaining Flow Capacity after Railcar Venting (CFM) = Flow Capacity (minus VCU Header) (CFM) - Total Flow From Railcar Venting (CFM)
Mass of Gasoline Vapors	512.00 lb/hr	Standard Heating Value of gasoline vapors used for design purposes.
Rack Heat Load	10.24 MMBTU/hr	Mass of gasoline vapors (lb/hr) = Organic Vapor Loss Rate (lb org./load) x No. trucks per loading rack x No. of loading racks = 32 x 4 x 4
Heat Load left	80.96 MMBTU/hr	Rack Heat Load (MMBTU/hr) = Mass of gas vapors (lb/hr) x Heat Value of gas vapors (Btu/lb) / 1,000,000 Btu/MMBtu
Heat Load From Railcar Bleedoff	52.42 MMBTU/hr	Heat Load left (MMBTU/hr) = Max Heating Capacity of Load (MMBTU/hr) - Rack Heat Load (MMBTU/hr)
Heat Load Remaining	28.55 MMBTU/hr	Heat Load Remaining (MMBTU/hr) = Heat Load left (MMBTU/hr) - Heat Load From Railcar Bleedoff from propylene
		Heat Load Remaining (MMBTU/hr) = Heat Load left (MMBTU/hr) - Heat Load From Railcar Bleedoff from propylene (MMBTU/hr)

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**Emissions from Equipment Leaks**

Equipment leak emissions assuming no monitoring Program. This case represents the **uncontrolled potential emissions**.

<b>Process Piping - No monitoring</b>			20% budget factor		
Equipment Type	Emissions Factor <sup>1</sup> (kg/component-hr)		Emissions Factor (lb/component-day)	Permitted Components	VOC Emissions (TPY)
Valves - gas	0.00597		0.316	98	5.65
Valves - liquid	0.00403		0.213	214	6.93
Pumps	0.0199		1.053	5	0.77
Flanges	0.00183		0.097	1723	25.38
Sampling Connections	0.015		0.794	152	18.40
Pressure Relief Devices	0.104		5.503	6	5.02
<b>TOTAL VOCs</b>					<b>62.14</b>

Equipment leak emissions assuming a full leak detection and repair program. This case represents the **controlled potential emissions**.

<b>Process Piping - Correlation Equations</b>			10000 ppm screening value	2% Leak Fraction	
Equipment Type	Emissions Factor <sup>1</sup> Default Zero (kg/component-hr)	Emissions Factor <sup>1</sup> Leaking Component (kg/component-hr)	Emissions Factor (lb/component-day)	Permitted Components	VOC Emissions (TPY)
Valves - gas	6.60E-07	5.81E-03	6.18E-03	98	0.11
Valves - liquid	6.60E-07	9.88E-03	1.05E-02	214	0.41
Pumps	7.50E-06	3.76E-02	4.01E-02	5	0.04
Flanges	6.10E-07	6.03E-03	6.41E-03	1723	2.02
Sampling Connections	6.10E-07	6.03E-03	6.41E-03	152	0.18
Pressure Relief Devices	7.50E-06	3.76E-02	4.01E-02	6	0.04
<b>TOTAL VOCs</b>					<b>2.80</b>

<sup>1</sup> Factors determined from EPA Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), Table 2-9 and 2-11, Nov. 1995.

**Methodology:**

Emission Factor (lb /component - day) = Emission Factor (kg /component - hr) x 24 hr/day x 2.20462 lb/kg  
 VOC Emissions (lb/yr) = Permitted Components x Emission Factor (lb / component - day) x 365 day/yr  
 VOC Emissions (ton/yr) = VOC Emissions (lb/yr) / 2000 lb/ton

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### Propylene Disconnect Calculation

Number of Cars Per Day 24  
 Loading Line Diameter 2 inches  
 Sphere Bleedoff Rate 0.123 lb/ft<sup>3</sup> / disconnect

Parameter	To Car	From Car	Total	units
Arm Length Between Final Valve and Car	4	10		feet
Line Pressure	2	-2		psig
Volume In Headers at Disconnect	0.0873	0.2182		ft <sup>3</sup>
Amount of Propylene in Headers at Disconnect	0.0108	0.0269	<b>0.0377</b>	lb/disconnect
	0.2583	0.6458	<b>0.9041</b>	lb/day
	0.1292	0.3229	<b>0.4521</b>	lb/session
	94.28	235.71	<b>330.00</b>	lb/yr
	0.0471	0.1179	<b>0.1650</b>	ton/yr

#### Methodology:

Throughput, Loading Line Diameter, Arm lengths, and Line Pressure values were provided by the source.  
 Sphere Bleedoff Rate is calculated on the following pages.

Volume in Headers at Disconnect (ft<sup>3</sup>) = Arm Length (ft) x PI x (Line Radius (ft))<sup>2</sup>

Amount of propylene in Headers at Disconnect (lb/disconnect) = Sphere Bleedoff Rate (lb/ft<sup>3</sup> / disconnect) x Volume in Headers at Disconnect (ft<sup>3</sup>)

Amount of propylene in Headers at Disconnect (lb/day) = Amount of propylene in Headers at Disconnect (lb/disconnect) x No. Cars per day

Amount of propylene in Headers at Disconnect (lb/session) = Amount of propylene in Headers at Disconnect (lb/day) / Total Loading Sessions (2 /day)

Amount of propylene in Headers at Disconnect (ton/yr) = Amount of propylene in Headers at Disconnect (lb/day) x 365 day/yr / 2000 lb/ton

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### Propylene Project Emissions Basis: Railcar

Propylene will be emitted from railcar operations when cars are vented down.

#### Assumptions and notes:

C2 = ethane and ethylene

C3 = propylene

Max propylene in car at 50 psig	2,647 lb/car
Frequency of having to vent down car	3% annual average
Max number of cars per day	24 car/day
Max number of cars vented per year	263
Max C3 to be consumed	695,733 lb/yr
Knock-out system efficiency	80%
Max C3 to VCU	556,586 lb/yr
Max C2 to VCU	139,147 lb/yr
Combustion Rate	7,000,000 lb/yr
Rail Car Venting	30% allocation
Size of Rail Car	2,100,000 lb/yr
	987 bbl/car
	5,540 ft <sup>3</sup>
Number of railcars this represents	793 cars/yr
No. of day's worth of cars this represents	33 days
Percent overpressure on annual basis	9.1%

#### Methodology:

Assumed as all C3; calculated on a previous page [ m (lb) = n x MW = MW x P x V / (R x T) ]

= 12 cars /loading session x 2 loading sessions /day  
 = No. cars loaded/day x Frequency of Vent Down (%)  
 = No. cars vented/yr x Max propylene in car (lb/car)

Based on partial pressure calculations at 250 psig operating pressure, where 80% of return stream expected to be C3, & the 20% C2 fraction is expected to be combusted from overpressured cars.

= Max C3 consumed (lb/yr) x Knock-out system efficiency (%)  
 = Max C3 consumed (lb/yr) x ( 1 - Knock-out system efficiency (%))

= Flaring Rate (lb/yr) x Rail Car Venting Allocation (%)  
 = Railcar Capacity (ft<sup>3</sup>) x 7.481 gal/ft<sup>3</sup> / barrel volume (gal/barrel)  
 = L (62') x [ {( H (10') + W (8') ) / 12 } / 2 ]<sup>2</sup> x pi  
 = Railcar Flaring Rate (lb/yr) / Max propylene in car @ 50psig (lb/car)  
 = No. Railcars represented (cars/yr) / No. Railcars per day  
 = No. of days worth of cars / 365 days/yr

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**Propylene Project Emissions Basis: Sphere**

Propylene will be emitted during transfer between the spheres and the railcars.

Max daily expected throughput 23,684 bbl/day  
 Density of compressed propylene 0.613 bulk density  
 Mass of propylene throughput 5,085,533 lb/day

= Maximum Throughput (bbl/day) x Barrel Volume (gal/bbl) x density H<sub>2</sub>O x bulk density of propylene

Maximum Sphere Loading Rate 211,897 lb/hr  
 1 car/hr

Max C2 concentration 0.7%  
 Vapor Density @ 250 psig 0.716 lb/ft<sup>3</sup>  
 Max C2 Throughput 35,599 lb/day  
 49,709 ft<sup>3</sup>/day  
 8,854 bbl/day

Design specification for maximum ethane concentration in propylene.  
 = 1 / m @ initial pressure  
 = Propylene Throughput (lb/day) x Max C2 Concentration of propylene (%)  
 = Max C2 Throughput (lb/day) / Vapor Density @ 250 psig (lb/ft<sup>3</sup>)  
 = Max C2 Throughput (ft<sup>3</sup>/day) x 7.481 gal/ft<sup>3</sup> / Barrel Volume (gal/barrel)

**Assume all C2 combusted**

High heating value (HHV) of ethane 22,400 Btu/lb  
 Max Btus to remove from system 797.41 MMBtu/day  
 33.2 MMBtu/hr

= Max C2 Throughput (lb/day) x HHV of ethane (Btu/lb) / 1000000 Btu/MMBtu

**Expected vessel void space**

Vessel Total Capacity 20,143 bbl  
 Vessel Working Capacity 17,121 bbl  
 Minimum void space per vessel 3,021 bbl  
 16,963 ft<sup>3</sup>  
 Total available void space 33,926 ft<sup>3</sup>  
 Number of day's C2 this represents 0.68 days

60 ft diameter spheres  
 15% void space  
 = Total Volume (bbl) - Working Volume (bbl)  
 = Minimum Void Space (bbl) x Barrel Volume (gal/barrel) / 7.481 gal/ft<sup>3</sup>  
 = Minimum Void Space x 2 Spheres  
 = Total Available Void Space (ft<sup>3</sup>) / Max C2 Throughput (ft<sup>3</sup>/day)

Sphere Ventdown 70% allocation  
 4,900,000 lb/yr  
 Days of venting at this rate @ max 138 days  
 Fraction of max C2 this represents 37.7%

= Flaring Rate (lb/yr) x Sphere Ventdown Allocation (%)  
 = Sphere Ventdown Rate (lb/yr) / Max C2 Throughput (lb/day)  
 = No. of days venting / 365 days/yr

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<u>Sphere Bleedoff</u>	Units	Ethane	Gasoline	Air	Propylene	
Design molecule		C <sub>2</sub> H <sub>6</sub>	C <sub>3</sub> H <sub>26</sub>	*	C <sub>3</sub> H <sub>6</sub>	
			C <sub>4</sub> H <sub>14</sub>		inlet side	outlet side
Capacity:	bbl	0.178	Cubic Foot Capacity (bbl) = 7.481 gal/ft <sup>3</sup> x 1 ft <sup>3</sup> / Volume (gal/barrel)			
<i>per cubic foot calculation</i>	gal/ft <sup>3</sup>	7.48				
	ft <sup>3</sup>	1.0				
P Initial	psig	250	0	0	2	-2
	psia	264.7	14.7	14.7	16.7	12.7
P Final	psig	200				
	psia	214.7	Pressure (psia) = Pressure (psig) + 14.7			
R	psia-ft <sup>3</sup> / (R-lb-mol)	10.73				
T	F (ambient)	70				
	R	530				
MW	lb/lb-mol	30	62	29	42	42
m**	lb @ initial P	1.396	0.160	0.075	0.123	0.094

m	Rack Header	0.11	lb @ initial pressure	Ethane	lb/ft <sup>3</sup>	ft <sup>3</sup> /lb
				@ initial P	1.396	0.716
				@ final P	1.133	0.883

PV = nRT

\*\*m (lb) = n x MW = MW x P x V / (R x T)

m (lb), Rack Header (@ initial pressure) = m (gas) x Gas Volume (40%) + m (air) x Air Volume (60%)

Components in Dry Air*	Volume Ratio compared to Dry Air	Molecular Mass - M (kg/kmol)	Molecular Mass in Air
Oxygen	0.2095	32	6.70
Nitrogen	0.7809	28.02	21.88
Carbon Dioxide	3.0E-04	44.01	1.3E-02
Hydrogen	5.0E-07	2.02	1.0E-06
Argon	9.3E-03	39.94	3.7E-01
Neon	1.8E-05	20.18	3.6E-04
Helium	5.0E-06	4	2.0E-05
Krypton	1.0E-06	83.8	8.4E-05
Xenon	9.0E-08	131.29	1.2E-05
<b>Total Molecular Mass of Air</b>			<b>28.97</b>

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### Process Information

#### Railcars:

Maximum Railcar Feed to Buckeye	23,684 barrels (bbl) /day 11,842 barrels (bbl) /loading session
# cars filled at one session	12 railcars/loading session
Expected time to fill cars	12 hr/loading session 2 loading sessions /day
Loading Capacity	24 cars/day
Car capacity	987 barrels (bbl) /car
Barrel Storage Volume	42 gal/barrel

#### Sphere vessels:

Sphere Loading Rate	2,100 barrels (bbl) /hour 88,200 gal/hr	
Sphere Diameter	60 feet	
Sphere Radius	30 feet	
Sphere Volume	113,097 ft <sup>3</sup>	
conversion factor	0.1781 bbl/ft <sup>3</sup>	
Total Volume	20,143 bbl 845,991 gal	
Working Volume Capacity:	85%	15% void space
Sphere Working Volume	17,121 bbl/sphere 719,092 gal/sphere	
Total Working Volume	34,242 bbl (total) 1,438,184 gal (total)	
Maximum Turnovers:	1.45 per day 527.71 per year	
Maximum Throughput	758,947,893 gal/yr 379,473,946 gal/sphere	
Working Loss	126.92 lb/yr	
Breathing Loss	0.20 lb/yr	
Total Emissions	127.12 lb/yr 6.36E-02 ton/yr	

#### Methodology:

Maximum Feed Rate to Buckeye (bbl/day) = Railcar Capacity (bbl/car) x Loading Capacity (cars/day)

Sphere Loading Rate (gal/hr) = Sphere Loading Rate (bbl/hr) x Barrel Storage Volume (gal/barrel)

Sphere Volume (ft<sup>3</sup>) =  $\frac{4}{3} \times \pi \times (\text{sphere radius (ft)})^3$

Sphere Total Volume (bbl) = Sphere Volume (ft<sup>3</sup>) x 0.1781 bbl/ft<sup>3</sup>

Sphere Working Volume (bbl) = Sphere Total Volume (bbl) x Working Volume Capacity (%)

Total Emissions from working and breathing losses were estimated using Tanks 4.0.9d. Since Tanks does not have an option for a spherical tank, a horizontal tank design was used.



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

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**Michael R. Pence**  
*Governor*

**Carol S. Comer**  
*Commissioner*

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Mac Meade  
Buckeye Terminals, LLC  
5521 West Lincoln Highway  
Crown Point, IN 46307

**DATE:** August 17, 2016

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
Title V Administrative Amendment  
089-37345-00320

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Nicholas Spitz, Sr. Manager Operations  
Nicole Brower, Envirospec Engineering, PLLC  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 2/17/2016

# Mail Code 61-53

IDEM Staff	VHAUN 8/17/2016 Buckeye Terminals, LLC 089-37345-00320 FINAL		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Mac Meade Buckeye Terminals, LLC 5521 W Lincoln Hwy Crown Point IN 46307 (Source CAATS)										
2		Nicholas Spitz Sr Manager Operations Buckeye Terminals, LLC 2400 Michigan St Hammond IN 46320 (RO CAATS)										
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 (Local Official)										
4		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health Department)										
5		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)										
6		Lowell Town Council and Town Manager PO Box 157, 501 East Main Street Lowell IN 46356 (Local Official)										
7		Shawn Sobocinski 1814 Laporte Street Portage IN 46368-1217 (Affected Party)										
8		Mr. Dennis Hahney Pipefitters Association, Local Union 597 1461 East Summit St Crown Point IN 46307 (Affected Party)										
9		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)										
10		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)										
11		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)										
12		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 (Affected Party)										
13		Mr. Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)										
14		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)										
15		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
<b>14</b>			

# Mail Code 61-53

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Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Gary City Council 401 Broadway # 209 Gary IN 46402 (Local Official)										
2		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 (Affected Party)										
3		Nicole Brower Envirospec Engineering, PLLC 349 Northern Blvd Albany NY 12304 (Consultant)										
4		Ryan Dave 939 Cornwallis Munster IN 46321 (Affected Party)										
5		Mark Coleman PO Box 85 Beverly Shores IN 46301-0085 (Affected Party)										
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11												
12												
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Total number of pieces Listed by Sender  <b>5</b>	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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