

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

12/19/2013

Certified Mail

Mr. Nick Frosini  
Buckeye Terminals - Cuyahoga Terminal  
459 Moon Clinton Road  
Coraopolis, PA 15017

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1318170183  
Permit Number: P0115677  
Permit Type: Administrative Modification  
County: Cuyahoga

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: CDAQ



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Buckeye Terminals - Cuyahoga Terminal**

Facility ID: 1318170183  
Permit Number: P0115677  
Permit Type: Administrative Modification  
Issued: 12/19/2013  
Effective: 12/19/2013  
Expiration: 8/17/2017





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Buckeye Terminals - Cuyahoga Terminal

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**Final Permit-to-Install and Operate**  
Buckeye Terminals - Cuyahoga Terminal  
**Permit Number:** P0115677  
**Facility ID:** 1318170183  
**Effective Date:** 12/19/2013

## Authorization

Facility ID: 1318170183  
Application Number(s): M0002358  
Permit Number: P0115677  
Permit Description: Administrative modification of FEPTIO P0109875 to allow distillate loading at EU J001 (load rack) without being connected to the vapor recovery unit (VRU), if the previously loaded material was also distillate.  
Permit Type: Administrative Modification  
Permit Fee: \$375.00  
Issue Date: 12/19/2013  
Effective Date: 12/19/2013  
Expiration Date: 8/17/2017  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Buckeye Terminals - Cuyahoga Terminal  
4800 E 49 ST  
Cuyahoga Heights, OH 44125

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

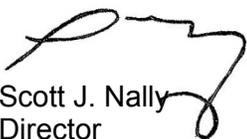
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally  
Director



**Final Permit-to-Install and Operate**  
Buckeye Terminals - Cuyahoga Terminal  
**Permit Number:** P0115677  
**Facility ID:** 1318170183  
**Effective Date:** 12/19/2013

## Authorization (continued)

Permit Number: P0115677

Permit Description: Administrative modification of FEPTIO P0109875 to allow distillate loading at EU J001 (load rack) without being connected to the vapor recovery unit (VRU), if the previously loaded material was also distillate.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>J001</b>
Company Equipment ID:	Gasoline Tank Truck Loading Rack
Superseded Permit Number:	P0109875
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Buckeye Terminals - Cuyahoga Terminal  
**Permit Number:** P0115677  
**Facility ID:** 1318170183  
**Effective Date:** 12/19/2013

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Final Permit-to-Install and Operate**  
Buckeye Terminals - Cuyahoga Terminal  
**Permit Number:** P0115677  
**Facility ID:** 1318170183  
**Effective Date:** 12/19/2013

## **B. Facility-Wide Terms and Conditions**



1. The terms and conditions in this section address facility-wide requirements.
  - a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
    - (1) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
      - a. None.
    - (2) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
      - a. b)(2)a. c)(1) and (2), d)(1), e)(1), f)(1)a. and b., and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V and MACT Applicability	See b)(2)a. below.

(2) Additional Terms and Conditions

- a. The total combined annual emissions from all facility emissions units, including permit to install and operate exempt and "de minimis" emissions units, shall not exceed the following as rolling, 12- month summations:
  - i. 86.54 tons of volatile organic compounds (VOC); and
  - ii. 6.79 tons of individual and combined hazardous air pollutants (HAPs)

c) Operational Restrictions

- (1) Annual throughput of gasoline and ethanol shall not exceed 319,000,000 gallons per rolling, 12-month period.



(2) Annual throughput of distillates (diesel, kerosene, and jet fuel) shall not exceed 300,000,000 gallons per rolling, 12-month period.

d) Monitoring and Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

- a. the calculated, total VOC and HAP (individual and combined HAPs) emissions (in tons); and
- b. the rolling, 12-month summations of VOC and HAP (individual and combined HAPs) emissions (in tons) from gasoline, ethanol, and distillates for all emission units at the facility, in tons.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. the rolling, 12-month VOC emission limitation of 86.54 tons; and,
  - ii. the rolling, 12-month individual and combined HAP emissions limitation of 6.79 tons
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland Division of Air Quality (Cleveland DAQ).

(2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) above shall be determined in accordance with the following method(s):

a. Emission Limitation:

86.54 tons per year of VOC as a rolling, 12-month summation from all facility emissions units

Applicable Compliance Method:

Compliance with this emission limitation shall be based upon the records required pursuant to d)(1) above.

In order to calculate the VOC emission rates, the permittee shall employ the following:

- i. VOC emissions from the storage tanks shall be determined using the most recent version of USEPA's "Tanks" program or AP-42 Chapter 7 or equivalent program.
- ii. The VOC emissions from fugitive emissions (i.e., valves, flanges, open ended lines, and pumps) shall be determined using EPA-453/R-95-017, "Protocol for Equipment Leak Emission Estimates."
- iii. VOC emissions from storage tank roof landings shall be determined using AP-42, Fifth Edition, Section 7.1.3.2.2 Equation (2-10).
- iv. The VOC emissions from gasoline, ethanol or distillate truck loading for J001 shall be determined, using AP- 42, Fifth Edition, Section 5.2, Equation (1), dated January 1995, the most recent VOC stack test results for the control efficiency, and a collection efficiency of 99 percent (AP-42, Notice of Proposed Change to AP-42 Section 5.2, dated December 15, 1995).

b. Emission Limitations:

6.79 tons of individual and combined HAPs per rolling, 12-month summation from all facility emissions units

Applicable Compliance Method:

Compliance with these emission limitations shall be based upon the records required pursuant to d)(1) above.

To calculate HAP emissions for the purpose of determining compliance with the applicable emission limitations in b)(2)a., the permittee shall comply with the following procedures. For every individual HAP, multiply the following concentration(s) by the actual annual VOC emission rate for the year (in tons per year) for all VOC emissions from fuel loading and storage activities at the facility,



including fugitive emissions and then add the potential HAP emissions from permit exempt, de minimis, and permit by rule (PBR) sources.

- i. The HAP emissions from gasoline loading and storage operations shall be determined using the following concentrations:
  - (a) 2,2,4 TMP – 0.95315 weight %
  - (b) Benzene – 0.62539 weight %
  - (c) Cresol - 0.00065 weight %
  - (d) Cumene - 0.01565 weight %
  - (e) Ethylbenzene - 0.06313 weight %
  - (f) Hexane - 4.42761 weight %
  - (g) MTBE - 0.3 weight %
  - (h) Naphthalene - 0.00055 weight %
  - (i) Phenol - 0.00011 weight %
  - (j) Styrene - 0.08817 weight %
  - (k) Toluene – 0.84213 weight %
  - (l) Xylenes – 0.23501 weight %
  
- ii. The HAP emissions from ethanol loading and storage operations shall be determined using the following concentrations:
  - (a) 2,2,4 TMP – 0.95315 weight %
  - (b) Benzene – 0.62539 weight %
  - (c) Cresol - 0.00065 weight %
  - (d) Cumene - 0.01565 weight %
  - (e) Ethylbenzene - 0.06313 weight %
  - (f) Hexane - 4.42761 weight %
  - (g) MTBE - 0.3 weight %
  - (h) Naphthalene - 0.00055 weight %
  - (i) Phenol - 0.00011 weight %
  - (j) Styrene - 0.08817 weight %



- (k) Toluene – 0.84213 weight %
  - (l) Xylenes – 0.23501 weight %
  - iii. The HAP emissions from jet and distillate fuel loading and storage operations shall be determined using the following concentrations:
    - (a) 2,2,4 TMP – 0.28443 weight %
    - (b) Benzene - 0.2 weight %
    - (c) Cresol - 0.00378 weight %
    - (d) Cumene - 0.1 weight %
    - (e) Ethylbenzene - 0.2 weight %
    - (f) Hexane - 0.1 weight %
    - (g) MTBE - 0 weight %
    - (h) Naphthalene - 0.08908 weight %
    - (i) Phenol - 0.01278 weight %
    - (j) Styrene - 0.07888 weight %
    - (k) Toluene – 0.4 weight %
    - (l) Xylenes – 0.8 weight %
  - iv. To determine total combined HAP emissions, sum the calculated annual emission rates for each individual HAP.
  - v. Should more accurate emission factors be developed during the current permit cycle, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Cleveland DAQ and the permittee.
- g) **Miscellaneous Requirements**
- (1) The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart BBBBBB, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>



- (2) The following table identifies the potential to emit (PTE) for all VOC generating emissions units located at this facility:

<b>Buckeye Terminals Cuyahoga Terminal VOC PTE Summary</b>			
<b>OEPA ID</b>	<b>Company ID</b>	<b>Permit Status</b>	<b>VOC (TPY)</b>
J001	Loading Rack (VRU and fugitive)	FEPTIO - P0109875	73.94
T001	587,372 gallon IFR tank (ethanol)	FEPTIO - P0109875	1.18
T002	587,467 gallon EFR tank gasoline	FEPTIO - P0109875	0.43
T003	1,675,719 gallon IFR tank (gasoline)	FEPTIO - P0109875	2.29
T004	1,675,437 gallon IFR tank (gasoline)	FEPTIO - P0109875	3.01
T005	613,000 gallon FRT (diesel)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(vi)	0.38
T006	613,000 gallon FRT (kerosene)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(vi)	0.38
T007	816,600 gallon FRT (#2 diesel fuel)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(vi)	1.07
T008	816,000 - Gallon FRT (#2 fuel oil)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(vi)	0.37
T009	2,000 gallon AST (diesel/fuel oil)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(iv)	0.10



T010	2,000 gallon horizontal AST (gasoline slop)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(iv)	0.10
T011	20,000 gallon horizontal AST (gasoline additive)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(v)	0.50
T013	12,000 gallon horizontal AST (diesel - truck refueling)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(iv)	0.002
T014	12,000 gallon AST (diesel additive tank)	Registration Status Permit Exempt OAC 3745-31-03(A)(1)(I)(iv)	0.50
B001	100 kw emergency generator (natural gas)	PBR Issued: 7/13/2011	0.04
	Pumps, Flanges, and Valves	fugitive	0.51
	Roof Landings	fugitive	1.57
<b>Total:</b>			<b>86.54</b>



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**Facility ID:** 1318170183  
**Effective Date:** 12/19/2013

## **C. Emissions Unit Terms and Conditions**



**1. J001, Gasoline Tank Truck Loading Rack**

**Operations, Property and/or Equipment Description:**

Loading rack equipped with carbon adsorption/gasoline absorption vapor recovery unit in series with a 17,000 cubic foot capacity VOC (volatile organic compounds) vapor holding tank.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a., c)(1), d)(1), e)(1), and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V and MACT applicability.	<u>Gasoline and Ethanol Loading Controlled by Vapor Recovery Unit (VRU):</u> 0.38 pound of volatile organic compounds (VOC) per 1,000 gallons (45 mg/l) of gasoline and ethanol loaded into the delivery vessel.  VOC emissions shall not exceed 60.61 tons per year (TPY).  <u>Distillate Loading (diesel fuels, fuel oils, kerosene, and jet fuel):</u> 0.014 pound of VOC per 1,000 gallons of diesel fuel loaded into the delivery vessel. VOC emissions shall not exceed 2.14



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>TPY uncontrolled.</p> <p><u>Tank Truck Fugitive Losses:</u>            0.07 pound of VOC per 1,000 gallons (8 mg/L) of gasoline and ethanol loaded into the delivery vessel.</p> <p>VOC emissions shall not exceed 11.17 TPY.</p> <p>0.014 pound of VOC per 1,000 gallons of distillates loaded into the delivery vessel.</p> <p>VOC emissions shall not exceed 0.02 TPY.</p> <p>The total annual VOC emissions from this emissions unit shall not exceed 73.96 TPY, as a rolling, 12-month summation.</p> <p>See c)(1), d)(1), e)(1), and f)(1) below.</p>
b.	OAC rule 3745-21-09(Q)	<p>The VOC emission limitation specified by this rule is less stringent than the VOC emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(b).</p> <p>See c)(2) through (7); d)(3) and (4); and e)(2) below.</p>

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) Compliance with the emission limitations as specified in b)(1)a. shall be achieved by restricting the annual throughput of refined petroleum products (i.e., gasoline, ethanol, and distillates (diesel, kerosene, and jet fuel)) as follows:



- i. The total annual throughput of gasoline and ethanol shall not exceed 319,000,000 gallons as a rolling, 12-month summation.
    - ii. The total annual throughput of distillates (diesel, kerosene, jet fuel) shall not exceed 300,000,000 gallons as a rolling, 12-month summation.
- (2) The loading rack shall be equipped with a vapor collection system which includes a 17,000 cubic feet vapor holding tank, whereby during the transfer of product to any gasoline delivery vessel:
  - a. all vapors displaced from the gasoline delivery vessel during loading are vented only to the vapor collection system; and
  - b. the pressure in the vapor collection system is maintained between minus 6 and plus 18 inches of water gauge pressure.
- (3) The loading rack shall be equipped with a vapor control system whereby:
  - a. all vapors collected by the vapor collection system are vented to the vapor control system; and
  - b. any liquid gasoline returned to a stationary storage tank from the vapor control system is free of entrained air to the extent possible with good engineering design.
- (4) A means shall be provided to prevent drainage of gasoline from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- (5) All gasoline loading lines and vapor lines shall be equipped with fittings which are vapor tight.
- (6) The permittee shall not permit gasoline to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.
- (7) The permittee shall repair any leak from the vapor collection system or vapor control system within 15 days of detection, where the system is employed to meet the requirements of paragraph (Q)(1) of OAC rule 3745-21-09 and when such leak is equal to or greater than 100 percent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10.
- (8) The maximum exhaust gas VOC concentration shall not exceed 3% (as propane) from the carbon adsorption vessels. [A VOC concentration that exceeds 3% (as propane) is not necessarily indicative of a violation of the allowable mass emission limitation (45 mg/l), but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.]



d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain monthly records of the following information:
  - a. the gasoline and ethanol throughput rates, in gallons, for each month;
  - b. the distillates throughput rates, in gallons for each month;
  - c. the updated rolling, 12-month summation of the gasoline, ethanol, and distillate throughput rates, in gallons;
  - d. the updated rolling, 12-month summation of the actual VOC emissions from the VRU and tank truck fugitive losses, in tons, for each month determined in accordance with Section B.1.f)(1)a. This shall include the information for the current month and the preceding eleven months.
- (2) The permittee shall maintain the data required by the vapor recovery unit manufacturers' recommended daily operating guidelines. Any subsequent changes to the guidelines shall be mutually agreeable to the permittee and the Cleveland Division of Air Quality (Cleveland DAQ).
- (3) The permittee shall properly operate, and maintain equipment to monitor the pressure in the vapor collection system, while the emissions unit is in operation, to demonstrate compliance with the pressure range established in OAC rule 3745-21-09(Q)(1)(a)(ii). The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- (4) The permittee shall repair any leak from the vapor collection system and/or vapor control system, that is equal to or greater than 100% of the LEL as propane (as determined under OAC 3745-21-10(K)), within 15 days of detection. The permittee shall maintain a record of each such leak that is not repaired within the 15 days.
- (5) The permittee shall perform monthly monitoring of the exhaust gas VOC concentration from both carbon adsorption vessels on the vapor recovery unit using the 40 CFR 60, Appendix A, Method 21 procedure for open ended lines. The highest VOC concentration, as measured during the processing of vapors during the last five minutes of the adsorption cycle for each vessel, shall be recorded. The permittee shall maintain records of the monthly monitored VOC concentrations detected in the exhaust gases from the vapor recovery unit.

e) **Reporting Requirements**

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:



- i. the rolling, 12-month limitations on the throughput of gasoline, ethanol, and distillates; and
  - ii. the rolling, 12-month emission limitation for VOC.
- b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (2) Any leaks in the vapor collection system or vapor control system equal to or greater than 100 percent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10 of the Administrative Code, that are not repaired within 15 days after identification, shall be reported to the Cleveland DAQ with the submittal of the annual Permit Evaluation Report (PER). This report shall include the date the leak was detected and the date the leak was repaired.
  - (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitations:  
73.96 tons of VOC per year from the loading of all refined petroleum products as a rolling, 12-month summation



Applicable Compliance Method:

Compliance shall be demonstrated through the recordkeeping requirements identified in d)(1).

Emission limitations when controlled by the VRU:

b. Emission Limitation:

0.38 pound of VOC per 1,000 gallons of gasoline and ethanol loaded

Applicable Compliance Method:

Compliance shall be demonstrated through emission testing procedures identified in f)(2).

c. Emission Limitation:

60.61 tons of VOC per year from gasoline and ethanol loading

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined through compliance with the short term limitation and annual throughput limitation.

The actual emissions shall be calculated as the product of the VOC emission rate from the most recent emission test that demonstrated compliance (conducted May 20, 2010), in pounds of VOC per 1,000 gallons of gasoline loaded, times the gallons of gasoline loaded during the year, divided by 2,000 lbs/ton.

The emission rate from the May 20, 2010 compliance test was 0.019 lb VOC/1,000 gallons.

A control efficiency of 99.55% was determined from the May 20, 2010 compliance test (when loading gasoline).

Uncontrolled distillate emission limitations:

d. Emission Limitation:

0.014 pound of VOC per 1,000 gallons of diesel fuel loaded (uncontrolled)

Applicable Compliance Method:

The VOC emissions rate from diesel fuel loading shall be determined using the uncontrolled distillates loading emission factor from AP-42, 5th Edition, Table 5.2-5.

e. Emission Limitation:

2.14 tons of VOC per year from distillate loading (uncontrolled)



Applicable Compliance Method:

The actual emissions shall be calculated as the product of the distillate fuel emission factor in pound of VOC per 1,000 gallons times the gallons of distillate fuel loaded during the year, divided by 2,000 lbs/ton.

Emission limitations for fugitive tank truck emissions:

f. Emission Limitation:

0.07 pound of VOC per 1,000 gallons from tank truck fugitive losses when loading gasoline and ethanol

Applicable Compliance Method:

The fugitive VOC emissions from gasoline tank trucks loading shall be determined using a vapor-tightness loss rate of 8 mg/l from the trucks which is equivalent to 0.07 lb VOC/1,000 gallons.

The 8 mg/L leakage emission factor (for cargo tanks subject to the 1-inch decay limit) was obtained from EPA-453/R-94-002b, November 1994 Gasoline Distribution Industry (Stage I) Background Information for Promulgated Standards.

If required, compliance shall be determined through performance testing.

g. Emission Limitation:

11.17 tons of VOC per year from gasoline and ethanol loading (fugitive losses)

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined through compliance with the short term limitation and annual throughput limitation.

Multiply 0.07 lb VOC/1,000 gallons by the annual throughput and divide by 2,000 lbs/ton.

h. Emission Limitation:

0.014 pound of VOC per 1,000 gallons from tank truck fugitive losses when loading distillate

Applicable Compliance Method:

The fugitive VOC emissions from distillate tank truck loading shall be determined using a vapor-tightness loss rate of 1.67 mg/L from the trucks which is equivalent to 0.014lb VOC/1,000 gallons.

The fugitive VOC emission factors from distillates loading shall be determined using AP-42, 5th Edition, Equation 5.2-1 (see g)(4)) below).



i. Emission Limitation:

2.14 tons of VOC (fugitive losses) per year when loading distillates

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined through compliance with the short term limitation and annual throughput limitation.

The actual emissions shall be calculated as the product of the uncontrolled distillate loading VOCs (AP-42 Section 5.2 Equation 1) times the reduction efficiency term (AP-42 page 5.2-6) assuming a collection efficiency of 99.27 percent for tanker trucks passing the MACT-level annual leak test.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 6 months prior to the permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOC at the VRU's outlet while loading gasoline and ethanol, in the appropriate averaging period(s).
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
    - Method 2A of 40 CFR Part 60, Appendix A
    - Method 21 of 40 CFR Part 60, Appendix A
    - Method 25B of 40 CFR Part 60, Appendix A
    - Method 205 of 40 CFR Part 60, Appendix AAlternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity between the calendar months of May and September, unless otherwise specified or approved by the Cleveland DAQ.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s),



and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

- f. Personnel from the Cleveland DAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

- (3) The emission test methods and procedures are those outlined in OAC rule 3745-21-10(E) in accordance with the methods and procedures contained in 40 CFR 60.503(b), (c), (e) and (f) of Subpart XX - Standards of Performance for Bulk Gasoline Terminals.

g) Miscellaneous Requirements

- (1) This emission unit was installed in 1954 and initially operated in 1955.
- (2) The vapor recovery system was installed and initially operated on 9/12/1980.
- (3) The most recent performance test of the VRU (J001) was conducted 5/20/2010.
- (4) VOC emission loading loss equation AP-42, 5th Edition, Equation 5.2-1:

$$L_L = 12.46 * (S * P * M) / T$$

where:

$L_L$  = loading loss, pounds per 1,000 gallons of liquid loaded

S = saturation factor (see Table 5.2-1)

P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia) (see Section 7.1, "Organic Liquid Storage Tanks")

M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole) (see Section 7.1, "Organic Liquid Storage Tanks")

T = temperature of bulk liquid loaded, °R (°F + 460)



- (5) Average leakage from cargo tanks required to pass 3-inch annual vapor tightness test is 1.3 percent (13 mg/L) EPA-453/R-94-002b, November 1994 Gasoline Distribution Industry (Stage I) Background Information for Promulgated Standards.
  
- (6) Buckeye requested that permit P0109875 be modified to allow distillate loading at EU J001 (load rack) without being connected to the vapor recovery unit (VRU), if the previous load was also distillate. The uncontrolled loading would result in an increase of a maximum 2.1 tons VOCs per year, at the maximum allowable throughput of 300 million gallons/yr. With the maximum uncontrolled distillate loading added, the current facility wide potential to emit (PTE) estimate becomes 86.54 tons/yr. This does not impact the synthetic minor status of the facility. The existing VRU is 30+ years old and processing the vapor volume from distillate loading has strained the control device. Buckeye is planning to replace the existing VRU in 2014; therefore, a specific allowance for uncontrolled distillate loading is requested. Per Larry Maline, errors in the original PTE analysis submitted with the April 2012 permit renewal application have now been corrected, as well as errors in the permit on pages 13-15.