



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

TELE: (614) 644-3020 FAX: (614) 644-2329

04/28/05

**CERTIFIED MAIL**

**RE: Final Chapter 3745-35 Permit To Operate**

**J001 (Truck loading rack) Truck Loading of Gasoline**

Buckeye Terminals LLC (08-57-04-0257)  
Jason Mengel  
5002 Buckeye Rd  
Emmaus, PA 18049

Dear Jason Mengel

The enclosed Permit(s) to Operate allow you to operate the described emissions unit(s) in the manner indicated in the Permit(s). Because each permit contains several terms and conditions, I urge you to read them carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

If you have any questions, please contact RAPCA.

Sincerely,

Michael W. Ahern  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

cc: RAPCA



State of Ohio Environmental Protection Agency

## Final Permit To Operate An Emissions Unit

Effective Date: 04/28/05

Expiration Date 04/28/10

This document constitutes issuance to:

Facility ID: 08-57-04-0257  
Buckeye Terminals LLC  
801 Brandt Pike  
Dayton, OH 45404

of a permit to operate for:

J001 (Truck loading rack)  
Truck Loading of Gasoline

You will be contacted six months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency identified below. This permit and the authorization to operate the air contaminant source (emissions unit) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC Chapter 3745-35 and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the Ohio EPA District Office or local air agency that is responsible for processing and administering your permit:

RAPCA  
117 South Main Street  
Dayton, OH 45422-1280  
(937) 225-4435

This permit is granted subject to the conditions attached hereto

Ohio Environmental Protection Agency

A handwritten signature in black ink, appearing to read "Joseph P. Koncelik".

Joseph P. Koncelik  
Director

## **Part I: General Terms and Conditions**

### **1. Compliance Requirements**

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

### **2. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### **3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

### **5. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the

Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

**7. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the following Ohio EPA District Office or local air agency which has jurisdiction in the area in which the facility is located:

RAPCA  
117 South Main Street  
Dayton, OH 45422-1280  
(937) 225-4435

It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

**Part II: Special Terms and Conditions**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
J001 - Tank truck loading rack with a McGill vapor recovery unit (VRU)	OAC rule 3745-35-07(B) (Synthetic Minor to avoid Title V permitting)	<p>Volatile organic compound (VOC) emissions shall not exceed 52.8 tons per rolling, 12-month period.</p> <p>VOC emissions from the vapor control system shall not exceed 0.17 pound of VOC per 1000 gallons (20 milligrams of VOC per liter) of gasoline (i.e., gasoline, additive, and interface/transmix) loaded into the delivery vessel.</p> <p>Facility-wide individual hazardous air pollutant (HAP) emissions shall not exceed 9.9 tons per rolling, 12-month period (see A.2.a).</p> <p>Facility-wide combined HAP emissions shall not exceed 24.9 tons per rolling, 12-month period (see A.2.a).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-35-07(B).</p>
	OAC rule 3745-21-09(Q)	

**2. Additional Terms and Conditions**

- 2.a The emissions of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from all emissions units at this facility shall not exceed 9.9 tons/year for any single HAP and 24.9 tons/year for any combination of HAPs, as rolling, 12-month summations.

**B. Operational Restrictions**

1. The annual throughput of gasoline shall not exceed 402,960,000 gallons per rolling, 12-month period.
2. The loading rack shall be equipped with a vapor collection system whereby during the transfer of gasoline to any delivery vessel:
  - a. All vapors displaced from the delivery vessel during loading are vented only to the vapor collection system
  - b. The pressure in the vapor collection system is maintained between minus 6 and plus 18 inches of water gauge pressure.

**B. Operational Restrictions (continued)**

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.
  - 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 within 15 days any leak from the vapor collection system and vapor control system 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 following vapor recovery unit (VRU) parameters have been identified as key operating parameters for which acceptable operating ranges have been established. The permittee shall operate the VRU within these acceptable operating ranges:
  - a. to ensure proper regeneration of the carbon beds, during the regeneration cycle, the minimum vacuum pulled shall be greater than or equal to 25 inches of mercury and the air purge solenoid must be open;
  - b. to ensure proper absorption by the absorption tower, the gasoline supply temperature shall not exceed 98 degrees F;
  - c. to ensure a proper flow rate from the absorption tower to the carbon bed, the absorber pressure shall be maintained between 8 psi and 15 psi; and
  - d. to ensure proper adsorption, the carbon bed temperature, at all levels, shall not exceed 150 degrees F.

Operation of the VRU outside of these specified operating ranges is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The total throughput of gasoline, in gallons.
  - b. The rolling, 12-month gasoline throughput rate, in gallons.
  - c. The rolling, 12-month VOC emission rate, in tons.\*

\* See calculation methodology in Section E.2.b of this permit.
2. The permittee shall maintain monthly records of the following information for the entire facility:
  - a. The total individual HAP emissions for each HAP, in tons.\*
  - b. The total combined HAPs emissions, in tons (the summation of a above for all HAPs).\*
  - c. The rolling, 12-month individual HAP emission rate, in tons.
  - d. The rolling, 12-month combined HAPs emission rate, in tons.

\* See calculation methodology in Section E.2.c of this permit.

**C. Monitoring and/or Record Keeping Requirements (continued)**

3. The permittee shall maintain the data required by the VRU manufacturer's recommended daily operating guidelines on a daily basis when the emissions unit is in operation, excluding Saturdays, Sundays and holidays. The permittee shall submit a copy of the operating guidelines to the Regional Air Pollution Control Agency within 90 days of the issuance of this permit. Any subsequent changes to these operating guidelines shall be mutually agreeable to the permittee and the Regional Air Pollution Control Agency.
4. The permittee shall implement, within 90 days of the issuance of this permit, a preventive maintenance program (PMP) for the vapor recovery unit (VRU) which has been approved by the Regional Air Pollution Control Agency. The PMP shall include an annual inspection of the VRU by a qualified individual trained in the operation and inspection of carbon adsorption/absorption systems. The resultant report shall be maintained on site and shall be made available during subsequent inspections by the Regional Air Pollution Control Agency.
5. The permittee shall collect and record the following information for the VRU each day when the emissions unit is in operation, excluding Saturdays, Sundays and holidays:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment;
  - b. during the regeneration cycle, the vacuum pressure in inches of mercury;
  - c. the gasoline supply temperature in degrees F;
  - d. the absorber pressure in psi; and
  - e. the carbon bed temperature in degrees F.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:
  - a. the rolling, 12-month gasoline throughput restriction of 402,960,000 (for this emissions unit);
  - b. the rolling, 12-month VOC emission limitation of 52.8 tons (for this emissions unit);
  - c. the rolling, 12-month individual HAP emission limitation of 9.9 tons (for the entire facility);
  - d. the rolling, 12-month combined HAP emission limitation of 24.9 tons (for the entire facility); and
  - e. the VRU key operating parameters established in Section B.8 above.

The permittee shall submit quarterly deviation (excursion) reports in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit annual reports that summarize the following information:
  - a. The total actual annual VOC emissions for this emissions unit, in tons.
  - b. The total actual annual gasoline throughput for this emissions unit, in gallons.
  - c. The total actual annual individual HAP emissions for the entire facility, in tons.
  - d. The total actual annual combined HAPs emissions for the entire facility, in tons.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summary reports that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and the cover the previous calendar quarter.

## **E. Testing Requirements**

1. Within twelve (12) months after the effective date of this permit, the permittee shall conduct or have conducted an emission test(s) for this emissions unit in order to demonstrate continuing compliance with the allowable VOC emission limitation of 0.17 pound of VOC per 1,000 gallons of gasoline loaded.

The emission test methods and procedures are those outlined in OAC rule 3745-21-10(E), i.e., a minimum of one 6-hour test, during which at least 300,000 liters (79,260 gallons) of gasoline are loaded. (The test should be conducted at the maximum gasoline throughput possible.)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. 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 Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency 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.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Regional Air Pollution Control Agency 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 RAPCA. The permittee shall include in the report the operating parameters as required in paragraph three of E.1.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation-  
0.17 pound of VOC per 1,000 gallons of gasoline loaded

Applicable Compliance Method-  
Compliance with the 1b VOC/1000 gallons of gasoline loaded emission limitation above shall be based upon the results of emission tests conducted in accordance with the procedures outlined in section E.1 of this permit.

- b. Emission Limitation-  
52.8 tons VOC per rolling, 12-month period (for this emissions unit)

Applicable Compliance Method-  
Compliance with the annual allowable VOC emission limitation above shall be determined as follows:

- i. For the VRU, multiply the rolling, 12-month gasoline throughput rate, from Section C.1.b, by the VOC emission factor (lbs VOC/1000 gallons gasoline loaded), calculated based on the results of the most recent emission tests that demonstrated compliance for the VRU.

- ii. For fugitive emissions from gasoline loading, multiply the rolling, 12-month gasoline throughput rate, from Section C.1.b, by the VOC emission factor (lb VOC/1000 gallons of gasoline loaded), calculated using AP-42, Section 5.2, Equation 1 (revised 1/95), and then multiply by a fugitive factor of (1 - 0.987\*).

\* The capture efficiency for the VRU is assumed to be 98.7%, based on the "Gasoline Distribution Industry (Stage I) - Background Information for Promulgated Standards, EPA-450/R-94-002b, November 1994, Appendix A, page A-5" document.

- iii. For distillates (i.e., diesel and Jet A) loading emissions, multiply the maximum annual throughput, in gallons, by the VOC emission factor (lb VOC/1000 gallons of distillate loaded), calculated using AP-42, Section 5.2, Equation 1 (revised 1/95).

- iv. Sum i + ii + iii, and then divide by 2000 lbs/ton.

**E. Testing Requirements (continued)**

c. Emission Limitations-  
9.9 tons of individual HAP emissions/year and 24.9 tons of combined HAPs emissions/year, based upon rolling, 12-month summations (facility-wide ) of the HAP emissions

**Applicable Compliance Methods-**

Compliance with the annual allowable HAP emission limitations above shall be determined as follows:

i. For individual and combined HAP emissions from the VRU, multiply the VOC emissions, from Section E.2.b.i above, by the HAP emission factors\* obtained from "Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standards, EPA-450/R-94-002a, January 1994, Table 3-2."

The specific HAP emission factors are:

- (a) benzene - 0.009 pound of benzene emissions per pound of VOC emissions;
  - (b) ethyl benzene - 0.001 pound of ethyl benzene emissions per pound of VOC emissions;
  - (c) hexane - 0.016 pound of hexane emissions per pound of VOC emissions;
  - (d) toluene - 0.013 pound of toluene emissions per pound of VOC emissions;
  - (e) xylene - 0.005 pound of xylene emissions per pound of VOC emissions;
  - (f) 2,2,4-trimethylpentane - 0.008 pound of 2,2,4-trimethylpentane emissions per pound of VOC emissions; and
  - (g) combined HAPs - 0.052 pound of combined HAP emissions per pound of VOC emissions.
- ii. For individual and combined fugitive HAP emissions from gasoline loading, multiply the VOC emissions, from Section E.2.b.ii above, by the HAP emission factors specified in Section E.2.c.i above.
- iii. For individual and combined HAP emissions from gasoline storage tanks, multiply the VOC emissions from all gasoline storage tanks at the facility, as determined using USEPA's "TANKS" Program Version 4 or higher, by the HAP emission factors specified in Section E.2.c.i above.

## **E. Testing Requirements (continued)**

- iv. For individual and combined HAPs emissions from equipment leaks (i.e., fugitive emissions from valves, flanges, open ended lines, pumps, etc.), multiply the VOC emissions from equipment leaks at the facility, as determined using the document "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017), by the HAP emission factors specified in Section E.2.c.i above.
- v. For individual HAP emissions from distillates loading, multiply the VOC emissions, from Section E.2.b.iii above, by the HAP emission factors provided by the permittee in a letter dated October 14, 2003. For combined HAPs emissions from distillates loading, sum the individual HAP emissions.
- vi. For individual HAP emissions from distillates storage tanks, multiply the VOC emissions from all distillates storage tanks at the facility, as determined using USEPA's "TANKS" Program Version 4 or higher, by the HAP emission factors provided by the permittee in a letter dated October 14, 2003. For combined HAPs emissions from distillates storage tanks, sum the individual HAP emissions.
- vii. For individual and combined HAPs emissions from the groundwater air stripper, multiply the maximum annual groundwater throughput (gallons/yr) by 3.7853 liters/gallon, and then by the maximum individual HAP groundwater concentration (micrograms/liter)\*. Then, multiply the result by 0.000001 gram/microgram and by 0.002205 lb/gram, and by (0.999)\*\*.
- \* The HAP groundwater concentrations are:
- (a) benzene - 500 micrograms/liter;
  - (b) toluene - 200 micrograms/liter;
  - (c) ethyl benzene - 100 micrograms/liter;
  - (d) xylene - 400 micrograms/liter; and
  - (e) combined HAP - 1200 micrograms/liter.
- \*\* The manufacturer's-guaranteed HAP pollutant removal rate (from groundwater) for the air stripper is 99.9%.
- viii. For each individual HAP, sum i + ii + iii + iv + v + vi + vii, and then divide by 2000 lbs/ton. For combined HAPs emissions, sum all the individual HAP emissions.

iv. 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 RAPCA and the permittee.

## **F. Miscellaneous Requirements**

1. In accordance with OAC rule 3745-35-07, the following terms in this permit are federally enforceable: Sections A, B, C, D, E, and F.