



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

09/11/97

**CERTIFIED MAIL**

02-47-00-0023

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

BP Exploration & Oil Inc. - Lorain Terminal  
Donald H Whitmore  
200 Public Square  
Cleveland, OH 44114-2375

Dear Donald H Whitmore:

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. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

If you have any questions, please contact the Northeast District Office at (216) 425-9171

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Northeast District Office  
Jim Orlemann, DAPC Engineering

Becky Castle, DAPC PMU



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 09/11/97

Facility ID: 02-47-00-0023

Expiration Date: 09/11/00

FINAL ISSUE

This document constitutes issuance for:

BP Exploration & Oil Inc. - Lorain Terminal  
12545 Avon-Belden Rd.  
Grafton, OH 44044

of a permit to operate for:

J001 (Loading Rack)  
Gasoline Loading Rack with Vapor Recovery System

### PART I General Terms & 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 three 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 appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

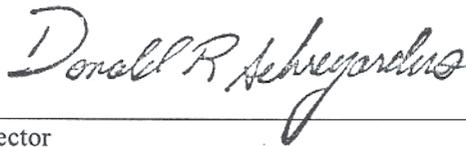
The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(216) 425-9171

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate DO or LAA.

10. The permittee is also subject to the attached special terms and conditions.

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in cursive script that reads "Donald R. Scheyardus". The signature is written in black ink and is positioned above a horizontal line.

Director

**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>
Loading rack with carbon adsorption/gasoline absorption vapor recovery unit.	OAC Rule 3745-21-09(Q) including but not limited to 3745-21-09(Q)(1)(b)(ii)	Gasoline Loading: 0.67 pound of VOC per 1,000 gallons (80 mg/l) of gasoline loaded into the delivery vessel
	OAC Rule 3745-35-07	Distillate Loading (diesel fuels, fuel oils, and kerosene): 0.02 pound of VOC per 1,000 gallons of distillates loaded into the delivery vessel; 3.0 tons VOC per year.
	OAC Rule 3745-35-07	Gasoline Loading: 80.0 tons VOC per year.
	OAC Rule 3745-35-07	The total annual VOC emissions from this emissions unit shall not exceed 83.0 tons.
	OAC Rule 3745-35-07	The total annual HAP emissions from this facility shall not exceed 25 tons per year. (See 2.a)
	OAC Rule 3745-35-07	The total annual emissions of any individual HAP from this facility shall not exceed 10 tons per year. (See 2.a)

**2. Additional Terms and Conditions**

- 2.a The emissions [as defined by OAC 3745-77-01(BB)] of hazardous air pollutants (HAPs) from all emissions units at this facility, as identified in Section 112(b) of Title III of the Clean Air Act, shall not exceed 10 TPY for any single HAP and 25 TPY for any combination of HAPs.

**B. Operational Restrictions**

1. The annual throughput of gasoline and distillates shall not exceed 239,000,000 gallons and 300,000,000 gallons, respectively. In order to ensure federal enforceability during the first twelve calendar months of operation after the issuance of this permit to operate (PTO), this emissions unit shall not exceed the following product throughput limitations:

2  
4

Facility Name: **BP Exploration & Oil Inc. - Lorain Terminal**  
Facility ID: **02-47-00-0023**  
Emissions Unit: **Loading Rack (J001)**

**B. Operational Restrictions (continued)**

Maximum Allowable Cumulative Throughput For:

Month(s)	Gasoline (gallons)	Distillates (gallons)
1	19,925,000	25,000,000
1-2	39,850,000	50,000,000
1-3	59,775,000	75,000,000
1-4	79,700,000	100,000,000
1-5	99,625,000	125,000,000
1-6	119,550,000	150,000,000
1-7	139,948,000	175,000,000
1-8	159,400,000	200,000,000
1-9	179,330,000	225,000,000
1-10	199,250,000	250,000,000
1-11	219,180,000	275,000,000
1-12	239,000,000	300,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual gasoline and distillate throughput limitations shall be based upon rolling 12-month summations of the gasoline and distillate throughput amounts.

2. The loading rack shall be equipped with a vapor collection system 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.
  - 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.
  - 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, discharged in sewers, stored in open containers or handled in any other manner that would result in evaporation.
7. The permittee shall repair within fifteen days any leak from the vapor collection system and vapor control system which are employed to meet the requirements of paragraph (Q)(1) of rul 3745-21-09 when such leak is equal to or greater than one-hundred percent of the lower explosive limit as propane, as determined under paragraph (K) of Rule 3745-21-10 of the Administrative Code.
8. The maximum exhaust gas VOC concentration shall not exceed 4% (as propane) from the carbon adsorption vessels. [A VOC concentration that exceeds 4% (as propane) is not necessarily indicative of a violation of the allowable mass emission limitation (80 mg/l), 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:
  - a. the total throughput of gasoline and distillates.
  - b. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total throughputs in gallons of gasoline and distillates for each calendar month.
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the total gasoline and distillates throughputs in gallons.

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

2. The permittee shall perform monthly monitoring of the exhaust gas VOC concentration from both carbon adsorption vessels, 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 5 minutes of the adsorption cycle for each vessel shall be recorded. The permittee shall maintain records of the monthly of the monthly monitored VOC concentrations detected in the exhaust gases from the vapor recovery unit. This recordkeeping shall begin 30 days after the issuance of the permit to operate.

### D. Reporting Requirements

1. This permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the following:
  - a. the rolling, 12-month limitations on the throughput of gasoline and distillates.
  - b. for the first 12 calendar months of operation following the issuance of this permit, the maximum allowable cumulative throughput limits.

These semiannual written reports shall include the following:

- a. an identification of each deviation;
- b. the probable cause of each deviation;
- c. any corrective actions or preventive measures which have been taken or will be taken.

If no deviations occurred during the 6 month period, the permittee shall submit a semiannual report, which states that no deviations occurred during that 6-month period. The reports shall be submitted semiannually, i.e. by February 15 and August 15 of each year and shall address the data obtained during the previous calendar 6-month period (July to December, and January to June, respectively).

2. This permittee shall submit an annual report of the total throughput, in gallons, for gasoline and distillates during the calendar year, and the estimated total VOC emissions from this emissions unit. This annual report shall be submitted by February 15.
3. The permittee shall submit semiannual reports indicating any exceedances of the VOC concentration limit, along with the cause of the exceedance and an explanation of any corrective action taken to prevent a similar exceedance in the future. These semiannual reports shall be submitted by February 15 and August 15 of each year and shall address the data obtained during the previous six calendar months (July through December, and January through June, respectively).

### E. Testing Requirements

1. 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 throughput possible.)

Within twelve (12) months prior to the expiration of this permit, the permittee shall conduct or have conducted, an emission test(s) for this emission unit in order to demonstrate continuing compliance with the allowable VOC emission rate. This test shall be done between the months of May through September.

Not later than 30 days prior to proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Northeast District Office of the Ohio EPA. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Northeast District Office 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 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 test(s) and submitted to the Northeast District Office within 30 days following the completion of the test(s).

4 Facility Name: BP Exploration & Oil Inc. - Lorain Terminal  
4 Facility ID: 02-47-00-0023  
Emissions Unit: Loading Rack (J001)

#### E. Testing Requirements (continued)

2. Compliance with the emission limitation(s) in Section A of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation: 0.67 pound VOC per thousand gallons of gasoline loaded.  
Applicable Compliance Method: OAC Rule 3745-21-10(E)

Emission Limitation: 0.02 pound VOC per thousand gallons of distillate loaded.  
Applicable Compliance Method: Use an emission factor from AP-42 of 0.016 pound of VOC per thousand gallons of kerosene and an emission factor of 0.014 pound of VOC emissions per thousand gallons of distillates.

Emission Limitation: 80.0 tons VOC/year from gasoline loading.  
Applicable Compliance Method: The actual emissions shall be calculated as the product of the VOC emission rate from the last emission test (in pounds of VOC per 1,000 gallons loaded) times the gallons of gasoline loaded during the year, divided by 2000.

Emission Limitation: 3.0 tons VOC/year from distillate loading.  
Applicable Compliance Method: The actual emissions shall be calculated as the product of 0.02 pound of VOC per 1,000 gallons times the gallons of distillates loaded during the year, divided by 2000.

Emission Limitation: 10 TPY for any single HAP and 25 TPY for any combination of HAPs.  
Applicable Compliance Method: For every individual HAP, multiply the following emission factors from the "Gasoline Distribution Industry (Stage 1) - Background Information for Proposed Standards Draft Report" by the actual annual VOC emission rate for the year (in TPY) for all emission units at the facility:

Hexane - 0.016 pound of hexane emissions per pound of VOC;  
Benzene - 0.009 pound of benzene emissions per pound of VOC;  
Toluene - 0.013 pound of toluene emissions per pound of VOC;  
2,2,4 Trimethylpentane - 0.008 pound of 2,2,4 trimethylpentane emissions per pound of VOC;  
Xylenes - 0.005 pound of xylenes emissions per pound of VOC; and  
Ethyl Benzene - 0.001 pound of ethyl benzene emissions per pound of VOC.

For the combination of HAPs, sum the calculated annual emission rates for the individual HAPs.

#### F. Miscellaneous Requirements

1. By request of the applicant and pursuant to OAC Rule 3745-35-07, the special terms and conditions of this PTO are federally enforceable requirements.