



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
50 West Town Street, Suite 700  
Columbus, OH 43215

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL**

**HANCOCK COUNTY**

**Application No: 03-17382**

**Fac ID: 0332010020**

**DATE: 12/11/2007**

Marathon Pipe Line LLC, Findlay Station  
Gary Wilson  
539 S. Main Street, Room 4603  
Findlay, OH 45840

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
Kb	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it 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. 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 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  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

*Michael W. Ahern* 

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

CC: USEPA

NWDO



Permit To Install  
Terms and Conditions

Issue Date: 12/11/2007  
Effective Date: 12/11/2007

**FINAL PERMIT TO INSTALL 03-17382**

Application Number: 03-17382

Facility ID: 0332010020

Permit Fee: **\$2250**

Name of Facility: Marathon Pipe Line LLC, Findlay Station

Person to Contact: Gary Wilson

Address: 539 S. Main Street, Room 4603  
Findlay, OH 45840

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**709 Glessner Avenue**  
**Findlay, Ohio**

Description of proposed emissions unit(s):  
**Reconstruction of 3 existing storage tanks.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director

## **Part I - GENERAL TERMS AND CONDITIONS**

### **A. Permit to Install General Terms and Conditions**

#### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### **2. Reporting 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 (i.e., postmarked) quarterly 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.)

#### **3. 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 this permit. Such records may be maintained in computerized form.

#### **4. 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 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.

**5. 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 units 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 the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

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

**7. 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.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	14.82

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (T008) - 3,360,000 Gallon Gasoline Storage Tank with Internal Floating Roof**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	See A.2.a
OAC rule 3745-21-09(L)	See A.2.b - A.2.e, C.3, C.9, and D.2
<u>40 CFR Part 60 Subpart Kb</u> 40 CFR Part 60.112b 40 CFR Part 60.113b 40 CFR Part 60.115b 40 CFR Part 60.116b	See A.2.f - A.2.n See C.4 - C.7 and D.3 See C.8 and D.4 - D.7 See C.1, C.3 and C.10

**2. Additional Terms and Conditions**

- 2.a Permit to Install 03-17323 for this air contaminant source takes into account the use of an internal floating roof as a voluntary restriction proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule-3745-31-05(A)(3).

The potential to emit for this emissions unit is 6.92 tons of volatile organic compounds (VOC)/year and is based on an annual throughput of 3,210,000 barrels\* of gasoline, U.S. EPA's TANKS version 4.0.9D, and landing losses calculated in accordance with AP-42 Section 7.1.3.2.2 (11/06). The landing losses were calculated assuming RVP 15 gasoline and an estimated two landing events per year.

\* 42 gallons per barrel

- 2.b The fixed roof storage tank shall be equipped with an internal floating roof.
- 2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

- 2.d** The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.
- 2.e** All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.
- 2.f** The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
- 2.g** Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

  - i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
  - ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted but both must be continuous.
  - iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
- 2.h** Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- 2.i** Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover

or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

- 2.j** Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- 2.k** Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- 2.l** Each penetration of the internal floating roof for the purpose of the sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- 2.m** Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- 2.n** Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

## **B. Operational Restrictions**

- 1. The permittee shall not exceed an annual material throughput rate of 3,210,000 barrels (42 gallons per barrel).

## **C. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).
- 2. The permittee shall maintain monthly records of the amount of material throughput for this emissions unit, in gallons per month and total gallons, to date, for the calendar year.
- 3. The permittee shall maintain records of the following information:
  - a. The types of petroleum liquids stored in the tank;
  - b. The period of storage; and
  - c. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each petroleum liquid that has a maximum true vapor pressure greater than 1.0

pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

- i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
- ii. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
  - (a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference - see 40 CFR 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
  - (b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
- iii. For other liquids, the vapor pressure:
  - (a) May be obtained from standard reference texts; or
  - (b) Determined by ASTM Method 2879-83 (incorporated by reference - see 40 CFR 60.17); or
  - (c) Measured by an appropriate method approved by the Administrator; or
  - (d) Calculated by an appropriate method approved by the Administrator.
4. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with volatile organic liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary

seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

5. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in D.7. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
6. For vessels equipped with a double-seal system as specified in A.2.h.ii:
  - a. Visually inspect the vessel as specified in C.7 at least every 5 years; or
  - b. Visually inspect the vessel as specified in C.5.
7. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or seal fabric, or the secondary seal has holes, tears, or openings in the seal or seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.5 and C.6.b and at intervals no greater than 5 years in the case of vessels specified in C.6.a.
8. The permittee shall keep a record of each inspection performed as required by sections C.4 - C.7. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
9. The permittee shall maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

10. The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements:
  - a. Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in C.3.c.
  - b. For vessels in which the vapor pressure of the anticipated liquid composition is above 76.6 kPa (11.1 psia), an initial physical test of the vapor pressure is required; and a physical test at least every 6 months thereafter is required as determined by the following methods:
    - i. ASTM Method D2879-83 (incorporated by reference - see 40 CFR 60.17);  
or
    - ii. ASTM Method D323-82 (incorporated by reference - see 40 CFR 60.17); or
    - iii. As measured by an appropriate method as approved by the Administrator.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports that summarize the total annual material throughput, in barrels, for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. The permittee shall notify the Northwest District Office within 30 days after the occurrence of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.
3. The permittee shall provide written notification at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by sections C.4 and C.7. If the inspection required by C.7 is not planned and the permittee could not have known about the inspection 30 days in advance of filling the tank, the permittee shall notify the Northwest District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Northwest District Office at least 7 days prior to the refilling.
4. The permittee shall submit a notification of the actual date of startup postmarked within 15 days after such date.
5. After installing the control equipment required by section A.2.c, the permittee shall submit a report that describes the control equipment and certifies that it meets the specifications

of section A.2.g - A.2.o and section C.4. This report shall be an attachment to the notification required by section D.4.

6. After each inspection required by C.6 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.6.b, a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.g through A.2.o or C.6 and list each repair made.
7. If any of the conditions described in C.5 are detected during the annual visual inspection required by C.5, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

**E. Testing Requirements**

None

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (T014) - 1,785,000 Gallon Gasoline Storage Tank with External Floating Roof**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	See A.2.a
OAC rule 3745-21-09(Z)	See A.2.b
<u>40 CFR Part 60 Subpart Kb</u> 40 CFR Part 60.112b 40 CFR Part 60.113b 40 CFR Part 60.115b 40 CFR Part 60.116b	See A.2.c - A.2.e See C.4 - C.8 and D.3 - D.4 See D.2 See C.1 and C.3

**2. Additional Terms and Conditions**

- 2.a Permit to Install 03-17323 for this air contaminant source takes into account the use of an external floating roof as a voluntary restriction proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule-3745-31-05(A)(3).

The potential to emit for this emissions unit is 3.95 tons of volatile organic compounds (VOC)/year and is based on an annual throughput of 1,485,000 barrels\* of gasoline, U.S. EPA's TANKS version 4.0.9D, and landing losses calculated in accordance with AP-42 Section 7.1.3.2.2 (11/06). The landing losses were calculated assuming RVP 15 gasoline and an estimated two landing events per year.

\* 42 gallons per barrel

- 2.b The requirements of this rule are less stringent than the requirements established under 40 CFR Part 60 Subpart Kb.
- 2.c The storage tank shall be equipped with an external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the

liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

- i. Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
  - (a) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 CFR 60.113(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
  - (b) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR 60.113(b)(4).

**2.d** Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

**2.e** The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

**B. Operational Restrictions**

- 1. The permittee shall not exceed an annual material throughput rate of 1,485,000 barrels (42 gallons per barrel).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).
2. The permittee shall maintain monthly records of the amount of material throughput for this emissions unit, in gallons per month and total gallons, to date, for the calendar year.
3. The permittee shall maintain records of the following information:
  - a. The types of petroleum liquids stored in the tank;
  - b. The period of storage; and
  - c. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each petroleum liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:
    - i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
    - ii. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
      - (a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference - see 40 CFR 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
      - (b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
    - iii. For other liquids, the vapor pressure:

- (a) May be obtained from standard reference texts; or
  - (b) Determined by ASTM Method 2879-83 (incorporated by reference - see 40 CFR 60.17); or
  - (c) Measured by an appropriate method approved by the Administrator; or
  - (d) Calculated by an appropriate method approved by the Administrator.
4. The permittee shall determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency:
- a. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with volatile organic liquid (VOL) and at least once every 5 years thereafter.
  - b. Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
  - c. If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill.
5. The permittee shall determine gap widths and areas in the primary and secondary seals individually by the following procedures:
- a. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
  - b. Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
  - c. The total surface area of each gap described in C.5.b above shall be determined using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
6. The permittee shall add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter

of the tank and compare each ratio to the respective standards in paragraph C.7 of this section.

7. The permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the following requirements:
  - a. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
    - i. One end of the mechanical shoe seal is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
    - ii. There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
  - b. The secondary seal is to meet the following requirements:
    - i. The secondary seal is to be install above the primary seal so that it completely covers the space between the roof edge and tank wall except as provided in section C.5.c.
    - ii. The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter and the width of any portion of any gap shall not exceed 1.27 cm.
    - iii. There are to be no holes, tears, or other openings in the seal or seal fabric.
  - c. If a failure that is detected during inspections required in paragraph (b)(1) of 40 CFR 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
8. The permittee shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

**D. Reporting Requirements**

1. The permittee shall submit annual reports that summarize the total annual material throughput, in barrels, for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. After installing the external floating roof, the permittee shall meet the following requirements:
  - a. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(2) and 40 CFR 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3).
  - b. Within 60 days of performing the seal gap measurements required by 40 CFR 60.113b(b)(1), furnish the Administrator with a report that contains the following:
    - i. The date of measurement.
    - ii. The raw data obtained in the measurement.
    - iii. The calculations described in 40 CFR 60.113b(b)(2) and (b)(3).
  - c. The permittee shall keep a record of each gap measurement performed as required by 40 CFR 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain the following:
    - i. The date of measurement.
    - ii. The raw data obtained in the measurement.
    - iii. The calculations described in 40 CFR 60.113b(b)(2) and (b)(3).
  - d. After each seal gap measurement that detects gaps exceeding the limitations specified by 40 CFR 60.113b(b)(4), the permittee shall submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in section D.2.b and the date the vessel was emptied or the repairs made and date of repair.
3. The permittee shall notify the Administrator 30 days in advance of any gap measurements required by section C.4 to afford the Administrator the opportunity to have an observer present.
4. For all inspections required in section C.8, the permittee shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the

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

5. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7 the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Actual start-up date (within 15 days after such date); and
- c. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
Northwest District Office  
Division of Air Pollution Control  
347 North Dunbridge Road  
Bowling Green, Ohio 43402

**E. Testing Requirements**

None

**F. Miscellaneous Requirements**

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (T015) - 1,785,000 Gallon Gasoline Storage Tank with External Floating Roof**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	See A.2.a
OAC rule 3745-21-09(Z)	See A.2.b
<u>40 CFR Part 60 Subpart Kb</u> 40 CFR Part 60.112b 40 CFR Part 60.113b 40 CFR Part 60.115b 40 CFR Part 60.116b	See A.2.c - A.2.e See C.4 - C.8 and D.3 - D.4 See D.2 See C.1 and C.3

**2. Additional Terms and Conditions**

- 2.a Permit to Install 03-17323 for this air contaminant source takes into account the use of an external floating roof as a voluntary restriction proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule-3745-31-05(A)(3).

The potential to emit for this emissions unit is 3.95 tons of volatile organic compounds (VOC)/year and is based on an annual throughput of 1,485,000 barrels\* of gasoline, U.S. EPA's TANKS version 4.0.9D, and landing losses calculated in accordance with AP-42 Section 7.1.3.2.2 (11/06). The landing losses were calculated assuming RVP 15 gasoline and an estimated two landing events per year.

\* 42 gallons per barrel

- 2.b The requirements of this rule are less stringent than the requirements established under 40 CFR Part 60 Subpart Kb.
- 2.c The storage tank shall be equipped with an external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the

liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

- i. Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
  - (a) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 CFR 60.113(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
  - (b) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR 60.113(b)(4).

**2.d** Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

**2.e** The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

**B. Operational Restrictions**

- 1. The permittee shall not exceed an annual material throughput rate of 1,485,000 barrels (42 gallons per barrel).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).
2. The permittee shall maintain monthly records of the amount of material throughput for this emissions unit, in gallons per month and total gallons, to date, for the calendar year.
3. The permittee shall maintain records of the following information:
  - a. The types of petroleum liquids stored in the tank;
  - b. The period of storage; and
  - c. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each petroleum liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:
    - i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
    - ii. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
      - (a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference - see 40 CFR 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
      - (b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
    - iii. For other liquids, the vapor pressure:

- (a) May be obtained from standard reference texts; or
  - (b) Determined by ASTM Method 2879-83 (incorporated by reference - see 40 CFR 60.17); or
  - (c) Measured by an appropriate method approved by the Administrator; or
  - (d) Calculated by an appropriate method approved by the Administrator.
4. The permittee shall determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency:
- a. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with volatile organic liquid (VOL) and at least once every 5 years thereafter.
  - b. Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
  - c. If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill.
5. The permittee shall determine gap widths and areas in the primary and secondary seals individually by the following procedures:
- a. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
  - b. Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
  - c. The total surface area of each gap described in C.5.b above shall be determined using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
6. The permittee shall add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter

of the tank and compare each ratio to the respective standards in paragraph C.7 of this section.

7. The permittee shall make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the following requirements:
  - a. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
    - i. One end of the mechanical shoe seal is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
    - ii. There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
  - b. The secondary seal is to meet the following requirements:
    - i. The secondary seal is to be install above the primary seal so that it completely covers the space between the roof edge and tank wall except as provided in section C.5.c.
    - ii. The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter and the width of any portion of any gap shall not exceed 1.27 cm.
    - iii. There are to be no holes, tears, or other openings in the seal or seal fabric.
  - c. If a failure that is detected during inspections required in paragraph (b)(1) of 40 CFR 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
8. The permittee shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports that summarize the total annual material throughput, in barrels, for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. After installing the external floating roof, the permittee shall meet the following requirements:
  - a. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(2) and 40 CFR 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3).
  - b. Within 60 days of performing the seal gap measurements required by 40 CFR 60.113b(b)(1), furnish the Administrator with a report that contains the following:
    - i. The date of measurement.
    - ii. The raw data obtained in the measurement.
    - iii. The calculations described in 40 CFR 60.113b(b)(2) and (b)(3).
  - c. The permittee shall keep a record of each gap measurement performed as required by 40 CFR 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain the following:
    - i. The date of measurement.
    - ii. The raw data obtained in the measurement.
    - iii. The calculations described in 40 CFR 60.113b(b)(2) and (b)(3).
  - d. After each seal gap measurement that detects gaps exceeding the limitations specified by 40 CFR 60.113b(b)(4), the permittee shall submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in section D.2.b and the date the vessel was emptied or the repairs made and date of repair.
3. The permittee shall notify the Administrator 30 days in advance of any gap measurements required by section C.4 to afford the Administrator the opportunity to have an observer present.
4. For all inspections required in section C.8, the permittee shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the

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

5. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7 the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Actual start-up date (within 15 days after such date); and
- c. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
Northwest District Office  
Division of Air Pollution Control  
347 North Dunbridge Road  
Bowling Green, Ohio 43402

**E. Testing Requirements**

None

**F. Miscellaneous Requirements**

None





