Facility ID: 1431073227 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431073227 Emissions Unit ID: T014 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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

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

   (a) None.

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

   (a) None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T014 - 2,730,000 gallon internal floating roof petroleum storage tank.	OAC rule 3745-31-05(A)(3) (PTI 14-05240)	See section B.1. The requirements of this rule also includes compliance with the requirements of OAC rule 3745-31-05(C) and 40 CFR Part 60 Subpart Kb.
	OAC rule 3745-31-05(C)	See terms A.2.b and A.2.c. See sections C.3, C.4, C.5, D.1, D.5, E.3 and E.6.
	40CFR Part 60 Subpart Kb	See terms A.2.d, A.2.e, A.2.f, C.2.a and C.2.b. See sections C.6, C.7, D.3 and D.5.
	OAC rule 3745-21-09(L) (when petroleum liquids are stored)	See terms A.2.e, A.2.e.v, A.2.e.vi and A.2.e.iv. See section C.2.

2. **Additional Terms and Conditions**

   (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of an internal floating roof storage tank with submerged fill and compliance with 40 CFR 60 Subpart Kb.
   The actual emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from emission units B002 (20 mmBtu/hr oil heater), J001 (loading rack), R001 (tank truck loading rack), T001 (40,000 bbl. fixed roof storage tank w/submerged fill), T002 (20,000 bbl. fixed roof storage tank w/submerged fill), T003 (25,000 bbl. fixed roof storage tank w/submerged fill), T004 (25,000 BBL. fixed roof storage tank w/submerged fill), T005 (5,000 BBL. fixed roof storage tank w/submerged fill), T006 (5,000 BBL. fixed roof storage tank w/submerged fill), T007 (2,500 BBL. fixed roof storage tank w/submerged fill), T008 (2,500 bbl. fixed roof storage tank w/submerged fill), T009 (2,500 bbl. fixed roof storage tank w/submerged fill), T010 (2,500 bbl. fixed roof storage tank w/submerged fill), T011 (2,500 bbl. fixed roof storage tank w/submerged fill), T013 (42,000 gal. floating roof petro tank), T014 (2.73 MM gallon storage tank), T015 (1.26 MM gallon storage tank), T016 (2.10 MM gallon storage tank), T017 (1.26 MM gallon storage tank), T018 (1.26 MM gallon storage tank), T019 (2.10 MM gallon storage tank), T020 (0.63 MM gallon storage tank) including all de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 currently, and future to-be-installed air contaminant sources, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
   The total VOC emissions from emissions units T013-T020 shall not exceed 15.19 TPY based on a rolling, 12-month summation.
   The owner or operator of each storage vessel with a design capacity greater than or equal to 151 cubic meters (m3) containing a volatile organic liquid (VOL) that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kilopascals (kPa) but less than 76.6 kPa shall equip each storage vessel with a fixed roof in combination with an internal floating roof.
   The permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

   i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and

shall be accomplished as rapidly as possible.

ii. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(a) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(b) Two seals mounted one above the 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.

(c) 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.

iii. 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.

iv. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

v. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

vi. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

vii. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

viii. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

B. **Operational Restrictions**

1. The permittee shall not store any material with a vapor pressure greater than or equal to 11.11 psia in this emissions unit.

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

1. The permittee, as specified in 40 CFR 60.116b(b), shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

2. The permittee shall maintain monthly records of the following information:

   a. The identification and type of each liquid material stored in this emissions unit.

   b. The maximum true vapor pressure, in psia, as stored, of each material.

   c. The density of the material stored, in pounds per gallon.

   d. The total throughput of each material, in gallons.

3. The permittee shall maintain monthly records of the total emissions of VOC, in tons for this emissions unit.

4. The permittee shall maintain monthly records of the following information for emissions units T013-T020, combined:

   a. The total combined monthly VOC emissions from emissions units T013-T020, in tons.

   b. The updated rolling12-month summation of the total combined VOC emissions from emissions units T013-T020, in tons. This shall include the information for the current month and the preceding eleven calendar months.

5. The permittee shall maintain the following monthly records for all of the emissions units identified in term A.2.b:

   a. The total individual HAP emissions for each HAP, in tons.

   b. The total combined HAPs emissions, in tons (the sum of a).

   c. The updated rolling, 12-month summation of the total individual HAP emissions for each HAP, in tons. This shall include the information for the current month and the preceding eleven calendar months.

d. The updated rolling, 12-month summation of the total combined HAP emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.

6. After installing the control equipment required to meet 40 CFR 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

a. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL(volatile organic liquid). 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.

b. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 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 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
c. For vessels equipped with a double-seal system as specified in 40 CFR 60.112b(a)(1)(ii)(B):

i. Visually inspect the vessel as specified in paragraph (a)(4) of 40 CFR 60.113b at least every 5 years; or

ii. Visually inspect the vessel as specified in paragraph (a)(2) of 40 CFR 60.113b.

d. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the 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 paragraphs (a)(2) and (a)(3)(ii) of 40 CFR 60.113b and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of 40 CFR 60.113b.

e. Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of 40 CFR 60.113b to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of 40 CFR 60.113b is not planned and the owner or operator could not have known about the inspection 30 days in advance or 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.

7. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below:

a. 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 maximun local monthly average ambient temperature as reported by the National Weather Service.

b. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) 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 Sec. 60.17), unless the appropriate Ohio EPA district office or local field office specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) 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.
c. For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(iii) Measured by an appropriate method approved by the Ohio EPA; or

(iv) Calculated by an appropriate method approved by the Ohio EPA.

D. **Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month VOC and HAP limitation in terms A.2.b and A.2.c.

2. The permittee shall submit an annual report which specifies the total VOC emissions from this emissions unit for the previous calendar year. This report shall be submitted by January 31 of each year.

3. After installing control equipment in accordance with 40 CFR 60.112b(a)(1) (fixed roof and internal floating roof), the permittee shall meet the following reporting requirements:

   a. Furnish the Hamilton County Department of Environmental Services with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3).

   b. Keep a record of each inspection performed as required by 40 CFR 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

   c. If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), 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.
   d. After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), 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 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record showing that any material stored in the tank exceeded the vapor pressure limit in term B.1for this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. **Testing Requirements**

1. VOC emissions from the storage tanks shall be determined using AP-42, 5th Edition, Chapter 7, Liquid Storage Tanks, September 1997.

2. Compliance with section B.1 shall be demonstrated by the recordkeeping in section C.2.

3. Compliance with the HAP emission limitations specified in term A.2.b shall be demonstrated by the recordkeeping in section C.5.

4. The VOC emissions from fugitive emissions (i.e., valves, flanges, open ended lines, and pumps) shall be determined using EPA-453/R-95-017, "Protocol for Equipment Leak Emission Estimates."

5. Should more accurate emission factors be developed during the current permit cycle, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Hamilton County Environmental Services and the permittee.

6. Compliance with the VOC emission limitations specified in term A.2.c shall be demonstrated by the recordkeeping in section C.4.

F. **Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.