

Facility ID: 1431302438 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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.

- [Go to Part II for Emissions Unit T005](#)
- [Go to Part II for Emissions Unit T006](#)
- [Go to Part II for Emissions Unit T007](#)
- [Go to Part II for Emissions Unit T008](#)
- [Go to Part II for Emissions Unit T009](#)

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

Facility ID: 1431302438 Emissions Unit ID: T005 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T005 - 1,000,000 gallon fixed roof tank with fiber bed filter and carbon filter	OAC rule 3745-31-05(A)(3) PTI 14-05627	Emissions of particulate matter (PE) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour.  Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour.  Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour.  Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour.  See section B.  The hourly and annual emission limitation(s), except for PE, PM10 and VOC, are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with these limits.
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-09(L). Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-21-09(L)	See sections C.3 and D.2.
	40 CFR Part 60, Subpart Ka	Exempt pursuant to 40 CFR 60.115a(d)(1).
	OAC rule 3745-31-05(C)	Particulate emissions (PM) and particulate emissions less than 10 microns (PM-10) shall not exceed 0.25 ton per year, based upon a rolling, 12-month summation.
		Volatile Organic Compound (VOC) emissions shall not exceed 4.43 tons per year, based upon a rolling,

12-month summation.

2. **Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by use of a fiber bed filter with a 90% PE control efficiency and a carbon filter with a 50% VOC control efficiency, and compliance with the opacity limitation and the mass emission limitations.

B. **Operational Restrictions**

1. The permittee shall operate, and maintain a fiber bed filter to control particulate emissions, and a carbon filter to control VOC emissions from this emissions unit. The fiber bed filter and carbon filter shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
2. The pressure drop across the fiber bed filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.
3. The lower explosive limit (LEL) shall not exceed 23 mg/liter while the emissions unit is in operation.

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

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fiber bed filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fiber bed on a daily basis.
2. The permittee shall perform semi-annual inspections of the carbon filter used to control VOC emissions from this emissions unit, and replace the filter as necessary. The permittee shall maintain records of the dates of inspection and the dates of filter replacement.
3. The permittee shall maintain records of the following:
  - a. the types of petroleum liquids stored in the tank; and
  - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
4. The permittee shall monitor the LEL in the vapor space of this emissions unit on a monthly basis. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain monthly records of the following information:
  - a. the monthly LEL reading;
  - b. the annual average LEL reading.

D. **Reporting Requirements**

1. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.0 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with all applicable sections of 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
2. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.5 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with, but not limited to, all applicable sections of both OAC rule 3745-21-09(L) and 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
3. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the fiber bed filter did not comply with the allowable range specified in section B.2.
4. The permittee shall submit LEL quarterly deviation (excursion) reports that identify all periods of time during which the LEL value exceeded the value specified in section B.3.
5. The permittee shall submit quarterly deviation (excursion) reports that identify of all exceedances of the rolling, 12-month emission limitations for PM, PM10, and VOC.
6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which identify the dates of inspection and/or replacement of the carbon filters in this emissions unit. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).
8. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).

E. **Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable compliance method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

Emissions Limitations:

Emissions of particulate matter (PM) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour and 0.25 ton per year, based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual PM/PM-10 emissions shall be determined by using the following equations:

$$\begin{aligned} \text{lbs/hr PM/PM-10} &= (A) \times (1-C) \\ \text{tons/yr PM/PM-10} &= (B) \times (1-C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} \end{aligned}$$

A = uncontrolled short-term peak PM/PM-10 emission factor of 1.42 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual PM/PM-10 emission factor of 0.57 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

C = fiber bed filter control efficiency of 90 percent, expressed as a decimal (0.90).

D = maximum hours operated annually (8760).

If required, compliance shall be determined using the following method:

For PM, Methods 1-4 and 5A of 40 CFR Part 60, Appendix A.

For PM-10, Methods 1-4 and 201 of 40 CFR Part 51, Appendix M.

Emissions Limitations:

Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour and 4.43 tons per year based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual VOC emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs VOC/hour} &= (A) \times (1-D) \\ \text{tons VOC/yr} &= (B) \times (C) \times (1-D) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = uncontrolled short-term peak hourly emission rate of 5.053 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual hourly emission rate of 2.021 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

C = maximum annual hours operated (8760)

D = carbon filter control efficiency of 50% (0.50)

If required, compliance shall be determined using the following method:

Methods 1-4 and 18 or 25 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable compliance method:

Hourly and annual CO emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs CO/hour} &= (A) \\ \text{tons CO/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.13 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 10 or 10B of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of hydrogen sulfide (H<sub>2</sub>S) shall not exceed 0.16 pound per hour and 0.70 ton per year.

Applicable Compliance Method:

Hourly and annual H<sub>2</sub>S emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs H}_2\text{S/hour} &= (A) \\ \text{tons H}_2\text{S/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.16 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 15 of 40 CFR Part 60, Appendix A.

2. Compliance with section B.2 shall be demonstrated by the record keeping in section C.1.
3. Compliance with section B.1 shall be demonstrated by the record keeping in sections C.1 and C.2.
4. Compliance with section B.3 shall be demonstrated by the record keeping in section C.4.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2.5 years of issuance of this permit;
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable VOC mass emission rate and the 50% control efficiency listed in term A.2.a of this emissions unit;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 thru 4 and 10 or 25 of 40 CFR Part 60, Appendix A. "The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol (e.g., "the mass balance protocol approved on 10/25/95"). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases." - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

#### F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

Facility ID: 1431302438 Emissions Unit ID: T006 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T006 - 1,000,000 gallon fixed roof tank with fiber bed filter and carbon filter	OAC rule 3745-31-05(A)(3) PTI 14-05627	Emissions of particulate matter (PE) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour.  Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour.  Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour.  Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour.  See section B.  The hourly and annual emission limitation(s), except for PE, PM10 and VOC, are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with these limits.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-09(L).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-21-09(L) 40 CFR Part 60, Subpart Ka	See sections C.3 and D.2. Exempt pursuant to 40 CFR 60.115a(d)(1).
	OAC rule 3745-31-05(C)	Particulate emissions (PM) and particulate emissions less than 10 microns (PM-10) shall not exceed 0.25 ton per year, based upon a rolling, 12-month summation.  Volatile Organic Compound (VOC) emissions shall not exceed 4.43 tons per year, based upon a rolling, 12-month summation.

2. **Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by use of a fiber bed filter with a 90% PE control efficiency and a carbon filter with a 50% VOC control efficiency, and compliance with the opacity limitation and the mass emission limitations.

B. **Operational Restrictions**

- 1. The permittee shall operate, and maintain a fiber bed filter to control particulate emissions, and a carbon filter to control VOC emissions from this emissions unit. The fiber bed filter and carbon filter shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- 2. The pressure drop across the fiber bed filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.
- 3. The lower explosive limit (LEL) shall not exceed 23 mg/liter while the emissions unit is in operation.

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

- 1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fiber bed filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fiber bed on a daily basis.
- 2. The permittee shall perform semi-annual inspections of the carbon filter used to control VOC emissions from this emissions unit, and replace the filter as necessary. The permittee shall maintain records of the dates of inspection and the dates of filter replacement.
- 3. The permittee shall maintain records of the following:
  - a. the types of petroleum liquids stored in the tank; and
  - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
- 4. The permittee shall monitor the LEL in the vapor space of this emissions unit on a monthly basis. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain monthly records of the following information:
  - a. the monthly LEL reading;

b. the annual average LEL reading.

**D. Reporting Requirements**

1. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.0 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with all applicable sections of 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
2. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.5 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with, but not limited to, all applicable sections of both OAC rule 3745-21-09(L) and 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
3. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the fiber bed filter did not comply with the allowable range specified in section B.2.
4. The permittee shall submit LEL quarterly deviation (excursion) reports that identify all periods of time during which the LEL value exceeded the value specified in section B.3.
5. The permittee shall submit quarterly deviation (excursion) reports that identify of all exceedances of the rolling, 12-month emission limitations for PM, PM10, and VOC.
6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which identify the dates of inspection and/or replacement of the carbon filters in this emissions unit. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).
8. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):  
Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable compliance method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).  
Emissions Limitations:

Emissions of particulate matter (PM) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour and 0.25 ton per year, based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual PM/PM-10 emissions shall be determined by using the following equations:

$$\begin{aligned} \text{lbs/hr PM/PM-10} &= (A) \times (1-C) \\ \text{tons/yr PM/PM-10} &= (B) \times (1-C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} \end{aligned}$$

A = uncontrolled short-term peak PM/PM-10 emission factor of 1.42 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual PM/PM-10 emission factor of 0.57 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

C = fiber bed filter control efficiency of 90 percent, expressed as a decimal (0.90).

D = maximum hours operated annually (8760).

If required, compliance shall be determined using the following method:

For PM, Methods 1-4 and 5A of 40 CFR Part 60, Appendix A.

For PM-10, Methods 1-4 and 201 of 40 CFR Part 51, Appendix M.

Emissions Limitations:

Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour and 4.43 tons per year based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual VOC emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs VOC/hour} &= (A) \times (1-D) \\ \text{tons VOC/yr} &= (B) \times (C) \times (1-D) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = uncontrolled short-term peak hourly emission rate of 5.053 lbs/hr, documented in PTI application 14-05627,

received October 4, 2004.

B = uncontrolled annual hourly emission rate of 2.021 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

C = maximum annual hours operated (8760)

D = carbon filter control efficiency of 50% (0.50)

If required, compliance shall be determined using the following method:

Methods 1-4 and 18 or 25 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable compliance method:

Hourly and annual CO emissions shall be calculated by using the following equations:

lbs CO/hour = (A)

tons CO/yr = (A) x (B) x (1 ton/2000 lbs)

where,

A = hourly emission rate of 0.13 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 10 or 10B of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of hydrogen sulfide (H<sub>2</sub>S) shall not exceed 0.16 pound per hour and 0.70 ton per year.

Applicable Compliance Method:

Hourly and annual H<sub>2</sub>S emissions shall be calculated by using the following equations:

lbs H<sub>2</sub>S/hour = (A)

tons H<sub>2</sub>S/yr = (A) x (B) x (1 ton/2000 lbs)

where,

A = hourly emission rate of 0.16 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 15 of 40 CFR Part 60, Appendix A.

2. Compliance with section B.2 shall be demonstrated by the record keeping in section C.1.
3. Compliance with section B.1 shall be demonstrated by the record keeping in sections C.1 and C.2.
4. Compliance with section B.3 shall be demonstrated by the record keeping in section C.4.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2.5 years of issuance of this permit;
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable VOC mass emission rate and the 50% control efficiency listed in term A.2.a of this emissions unit;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 thru 4 and 10 or 25 of 40 CFR Part 60, Appendix A. "The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol (e.g., "the mass balance protocol approved on 10/25/95"). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases." - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons

responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

Facility ID: 1431302438 Emissions Unit ID: T007 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T007 - 1,000,000 gallon fixed roof tank with fiber bed filter and carbon filter	OAC rule 3745-31-05(A)(3)	Emissions of particulate matter (PE) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour.
	PTI 14-05627	Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour.
		Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour.
		Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour.
		See section B.
		The hourly and annual emission limitation(s), except for PE, PM10 and VOC, are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with these limits.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-09(L).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-21-09(L)	See sections C.3 and D.2.
40 CFR Part 60, Subpart Ka	Exempt pursuant to 40 CFR 60.115a(d)(1).	
OAC rule 3745-31-05(C)	Particulate emissions (PM) and particulate emissions less than 10 microns (PM-10) shall not exceed 0.25 ton	

per year, based upon a rolling, 12-month summation.

Volatile Organic Compound (VOC) emissions shall not exceed 4.43 tons per year, based upon a rolling, 12-month summation.

**2. Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by use of a fiber bed filter with a 90% PE control efficiency and a carbon filter with a 50% VOC control efficiency, and compliance with the opacity limitation and the mass emission limitations.

**B. Operational Restrictions**

1. The permittee shall operate, and maintain a fiber bed filter to control particulate emissions, and a carbon filter to control VOC emissions from this emissions unit. The fiber bed filter and carbon filter shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
2. The pressure drop across the fiber bed filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.
3. The lower explosive limit (LEL) shall not exceed 23 mg/liter while the emissions unit is in operation.

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

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fiber bed filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fiber bed on a daily basis.
2. The permittee shall perform semi-annual inspections of the carbon filter used to control VOC emissions from this emissions unit, and replace the filter as necessary. The permittee shall maintain records of the dates of inspection and the dates of filter replacement.
3. The permittee shall maintain records of the following:
  - a. the types of petroleum liquids stored in the tank; and
  - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
4. The permittee shall monitor the LEL in the vapor space of this emissions unit on a monthly basis. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain monthly records of the following information:
  - a. the monthly LEL reading;
  - b. the annual average LEL reading.

**D. Reporting Requirements**

1. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.0 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with all applicable sections of 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
2. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.5 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with, but not limited to, all applicable sections of both OAC rule 3745-21-09(L) and 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
3. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the fiber bed filter did not comply with the allowable range specified in section B.2.
4. The permittee shall submit LEL quarterly deviation (excursion) reports that identify all periods of time during which the LEL value exceeded the value specified in section B.3.
5. The permittee shall submit quarterly deviation (excursion) reports that identify of all exceedances of the rolling, 12-month emission limitations for PM, PM10, and VOC.
6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which identify the dates of inspection and/or replacement of the carbon filters in this emissions unit. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).
8. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):  
Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable compliance method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).  
Emissions Limitations:

Emissions of particulate matter (PM) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour and 0.25 ton per year, based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual PM/PM-10 emissions shall be determined by using the following equations:

$$\begin{aligned} \text{lbs/hr PM/PM-10} &= (A) \times (1-C) \\ \text{tons/yr PM/PM-10} &= (B) \times (1-C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} \end{aligned}$$

A = uncontrolled short-term peak PM/PM-10 emission factor of 1.42 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual PM/PM-10 emission factor of 0.57 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

C = fiber bed filter control efficiency of 90 percent, expressed as a decimal (0.90).

D = maximum hours operated annually (8760).

If required, compliance shall be determined using the following method:

For PM, Methods 1-4 and 5A of 40 CFR Part 60, Appendix A.

For PM-10, Methods 1-4 and 201 of 40 CFR Part 51, Appendix M.

Emissions Limitations:

Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour and 4.43 tons per year based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual VOC emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs VOC/hour} &= (A) \times (1-D) \\ \text{tons VOC/yr} &= (B) \times (C) \times (1-D) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = uncontrolled short-term peak hourly emission rate of 5.053 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual hourly emission rate of 2.021 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

C = maximum annual hours operated (8760)

D = carbon filter control efficiency of 50% (0.50)

If required, compliance shall be determined using the following method:

Methods 1-4 and 18 or 25 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable compliance method:

Hourly and annual CO emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs CO/hour} &= (A) \\ \text{tons CO/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.13 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 10 or 10B of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of hydrogen sulfide (H<sub>2</sub>S) shall not exceed 0.16 pound per hour and 0.70 ton per year.

Applicable Compliance Method:

Hourly and annual H<sub>2</sub>S emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs H}_2\text{S/hour} &= (A) \\ \text{tons H}_2\text{S/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.16 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 15 of 40 CFR Part 60, Appendix A.

2. Compliance with section B.2 shall be demonstrated by the record keeping in section C.1.
3. Compliance with section B.1 shall be demonstrated by the record keeping in sections C.1 and C.2.
4. Compliance with section B.3 shall be demonstrated by the record keeping in section C.4.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2.5 years of issuance of this permit;
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable VOC mass emission rate and the 50% control efficiency listed in term A.2.a of this emissions unit;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 thru 4 and 10 or 25 of 40 CFR Part 60, Appendix A. "The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol (e.g., "the mass balance protocol approved on 10/25/95"). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases." - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

#### F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

Facility ID: 1431302438 Emissions Unit ID: T008 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T008 - 1,000,000 gallon fixed roof tank with fiber bed filter and carbon filter	OAC rule 3745-31-05(A)(3) PTI 14-05627	Emissions of particulate matter (PE) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour.  Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour.  Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour.  Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour.  See section B.  The hourly and annual emission limitation(s), except for PE, PM10 and VOC, are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with these limits.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-09(L).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-21-09(L) 40 CFR Part 60, Subpart Ka	See sections C.3 and D.2. Exempt pursuant to 40 CFR 60.115a(d)(1).
	OAC rule 3745-31-05(C)	Particulate emissions (PM) and particulate emissions less than 10 microns (PM-10) shall not exceed 0.25 ton per year, based upon a rolling, 12-month summation.  Volatile Organic Compound (VOC) emissions shall not exceed 4.43 tons per year, based upon a rolling, 12-month summation.

2. **Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by use of a fiber bed filter with a 90% PE control efficiency and a carbon filter with a 50% VOC control efficiency, and compliance with the opacity limitation and the mass emission limitations.

B. **Operational Restrictions**

1. The permittee shall operate, and maintain a fiber bed filter to control particulate emissions, and a carbon filter to control VOC emissions from this emissions unit. The fiber bed filter and carbon filter shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
2. The pressure drop across the fiber bed filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.
3. The lower explosive limit (LEL) shall not exceed 23 mg/liter while the emissions unit is in operation.

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

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fiber bed filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fiber bed on a daily basis.
2. The permittee shall perform semi-annual inspections of the carbon filter used to control VOC emissions from this emissions unit, and replace the filter as necessary. The permittee shall maintain records of the dates of inspection and the dates of filter replacement.
3. The permittee shall maintain records of the following:
  - a. the types of petroleum liquids stored in the tank; and
  - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
4. The permittee shall monitor the LEL in the vapor space of this emissions unit on a monthly basis. The monitoring

equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain monthly records of the following information:

- a. the monthly LEL reading;
- b. the annual average LEL reading.

**D. Reporting Requirements**

1. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.0 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with all applicable sections of 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
2. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.5 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with, but not limited to, all applicable sections of both OAC rule 3745-21-09(L) and 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
3. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the fiber bed filter did not comply with the allowable range specified in section B.2.
4. The permittee shall submit LEL quarterly deviation (excursion) reports that identify all periods of time during which the LEL value exceeded the value specified in section B.3.
5. The permittee shall submit quarterly deviation (excursion) reports that identify of all exceedances of the rolling, 12-month emission limitations for PM, PM10, and VOC.
6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which identify the dates of inspection and/or replacement of the carbon filters in this emissions unit. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).
8. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):  
Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable compliance method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).  
Emissions Limitations:

Emissions of particulate matter (PM) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour and 0.25 ton per year, based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual PM/PM-10 emissions shall be determined by using the following equations:

$$\begin{aligned} \text{lbs/hr PM/PM-10} &= (A) \times (1-C) \\ \text{tons/yr PM/PM-10} &= (B) \times (1-C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} \end{aligned}$$

A = uncontrolled short-term peak PM/PM-10 emission factor of 1.42 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual PM/PM-10 emission factor of 0.57 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

C = fiber bed filter control efficiency of 90 percent, expressed as a decimal (0.90).

D = maximum hours operated annually (8760).

If required, compliance shall be determined using the following method:

For PM, Methods 1-4 and 5A of 40 CFR Part 60, Appendix A.

For PM-10, Methods 1-4 and 201 of 40 CFR Part 51, Appendix M.

Emissions Limitations:

Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour and 4.43 tons per year based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual VOC emissions shall be calculated by using the following equations:

$$\text{lbs VOC/hour} = (A) \times (1-D)$$

tons VOC/yr = (B) x (C) x (1-D) x (1 ton/2000 lbs)

where,

A = uncontrolled short-term peak hourly emission rate of 5.053 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual hourly emission rate of 2.021 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

C = maximum annual hours operated (8760)

D = carbon filter control efficiency of 50% (0.50)

If required, compliance shall be determined using the following method:

Methods 1-4 and 18 or 25 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable compliance method:

Hourly and annual CO emissions shall be calculated by using the following equations:

lbs CO/hour = (A)

tons CO/yr = (A) x (B) x (1 ton/2000 lbs)

where,

A = hourly emission rate of 0.13 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 10 or 10B of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour and 0.70 ton per year.

Applicable Compliance Method:

Hourly and annual H2S emissions shall be calculated by using the following equations:

lbs H2S/hour = (A)

tons H2S/yr = (A) x (B) x (1 ton/2000 lbs)

where,

A = hourly emission rate of 0.16 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 15 of 40 CFR Part 60, Appendix A.

2. Compliance with section B.2 shall be demonstrated by the record keeping in section C.1.
3. Compliance with section B.1 shall be demonstrated by the record keeping in sections C.1 and C.2.
4. Compliance with section B.3 shall be demonstrated by the record keeping in section C.4.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2.5 years of issuance of this permit;
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable VOC mass emission rate and the 50% control efficiency listed in term A.2.a of this emissions unit;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 thru 4 and 10 or 25 of 40 CFR Part 60, Appendix A. "The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol (e.g., "the mass balance protocol approved on 10/25/95"). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases." - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the

test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

Facility ID: 1431302438 Emissions Unit ID: T009 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T009 - 5,200,000 gallon fixed roof tank with fiber bed filter and carbon filter	OAC rule 3745-31-05(A)(3) PTI 14-05627	Emissions of particulate matter (PE) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour.  Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour.  Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour.  Emissions of hydrogen sulfide (H2S) shall not exceed 0.16 pound per hour.
		See section B.
		The hourly and annual emission limitation(s), except for PE, PM10 and VOC, are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly and annual records are required to demonstrate compliance with these limits.
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-21-09(L). Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established

OAC rule 3745-21-09(L)  
40 CFR Part 60, Subpart Ka  
OAC rule 3745-31-05(C)

pursuant to OAC rule 3745-31-05 (A)(3).  
See sections C.3 and D.2.  
Exempt pursuant to 40 CFR 60.115a(d)(1).  
Particulate emissions (PM) and particulate emissions less than 10 microns (PM-10) shall not exceed 0.25 ton per year, based upon a rolling, 12-month summation.

Volatile Organic Compound (VOC) emissions shall not exceed 4.43 tons per year, based upon a rolling, 12-month summation.

**2. Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by use of a fiber bed filter with a 90% PE control efficiency and a carbon filter with a 50% VOC control efficiency, and compliance with the opacity limitation and the mass emission limitations.

**B. Operational Restrictions**

1. The permittee shall operate, and maintain a fiber bed filter to control particulate emissions, and a carbon filter to control VOC emissions from this emissions unit. The fiber bed filter and carbon filter shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
2. The pressure drop across the fiber bed filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.
3. The lower explosive limit (LEL) shall not exceed 23 mg/liter while the emissions unit is in operation.

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

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fiber bed filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fiber bed on a daily basis.
2. The permittee shall perform semi-annual inspections of the carbon filter used to control VOC emissions from this emissions unit, and replace the filter as necessary. The permittee shall maintain records of the dates of inspection and the dates of filter replacement.
3. The permittee shall maintain records of the following:
  - a. the types of petroleum liquids stored in the tank; and
  - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
4. The permittee shall monitor the LEL in the vapor space of this emissions unit on a monthly basis. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain monthly records of the following information:
  - a. the monthly LEL reading;
  - b. the annual average LEL reading.

**D. Reporting Requirements**

1. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.0 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with all applicable sections of 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
2. If the permittee places, stores, or holds any petroleum liquid with a true vapor pressure which is greater than 1.5 pound per square inch absolute, the permittee shall so notify the Director (the Hamilton County Department of Environmental Services) and shall comply with, but not limited to, all applicable sections of both OAC rule 3745-21-09(L) and 40 CFR, Part 60, Subpart Ka within 30 days of becoming aware of the occurrence.
3. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the fiber bed filter did not comply with the allowable range specified in section B.2.
4. The permittee shall submit LEL quarterly deviation (excursion) reports that identify all periods of time during which the LEL value exceeded the value specified in section B.3.
5. The permittee shall submit quarterly deviation (excursion) reports that identify of all exceedances of the rolling, 12-month emission limitations for PM, PM10, and VOC.
6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services which identify the dates of inspection and/or replacement of the carbon filters in this emissions unit. These reports shall be submitted by January 31 of each year, and shall cover the previous twelve month period (January through December).
8. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year, and shall cover the

previous twelve month period (January through December).

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):  
Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable compliance method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).  
Emissions Limitations:

Emissions of particulate matter (PM) and particulate matter 10 microns and less (PM-10) in diameter shall not exceed 0.14 pound per hour and 0.25 ton per year, based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual PM/PM-10 emissions shall be determined by using the following equations:

$$\begin{aligned} \text{lbs/hr PM/PM-10} &= (A) \times (1-C) \\ \text{tons/yr PM/PM-10} &= (B) \times (1-C) \times (D) \times 1 \text{ ton}/2000 \text{ lbs} \end{aligned}$$

A = uncontrolled short-term peak PM/PM-10 emission factor of 1.42 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual PM/PM-10 emission factor of 0.57 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

C = fiber bed filter control efficiency of 90 percent, expressed as a decimal (0.90).

D = maximum hours operated annually (8760).

If required, compliance shall be determined using the following method:

For PM, Methods 1-4 and 5A of 40 CFR Part 60, Appendix A.

For PM-10, Methods 1-4 and 201 of 40 CFR Part 51, Appendix M.

Emissions Limitations:

Emissions of volatile organic compounds (VOC) shall not exceed 2.53 pounds per hour and 4.43 tons per year based on a rolling, 12-month summation.

Applicable compliance method:

Hourly and annual VOC emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs VOC/hour} &= (A) \times (1-D) \\ \text{tons VOC/yr} &= (B) \times (C) \times (1-D) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = uncontrolled short-term peak hourly emission rate of 5.053 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

B = uncontrolled annual hourly emission rate of 2.021 lbs/hr, documented in PTI application 14-05627, received October 4, 2004.

C = maximum annual hours operated (8760)

D = carbon filter control efficiency of 50% (0.50)

If required, compliance shall be determined using the following method:

Methods 1-4 and 18 or 25 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of carbon monoxide (CO) shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable compliance method:

Hourly and annual CO emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs CO/hour} &= (A) \\ \text{tons CO/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.13 lb/hr, documented in PTI application 14-05627, received October 4, 2004.

B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 10 or 10B of 40 CFR Part 60, Appendix A.

Emissions Limitations:

Emissions of hydrogen sulfide (H<sub>2</sub>S) shall not exceed 0.16 pound per hour and 0.70 ton per year.

Applicable Compliance Method:

Hourly and annual H2S emissions shall be calculated by using the following equations:

$$\begin{aligned} \text{lbs H2S/hour} &= (A) \\ \text{tons H2S/yr} &= (A) \times (B) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where,

A = hourly emission rate of 0.16 lb/hr, documented in PTI application 14-05627, received October 4, 2004.  
B = maximum annual hours operated (8760)

If required, compliance shall be determined using the following method:

Methods 1-4 and 15 of 40 CFR Part 60, Appendix A.

2. Compliance with section B.2 shall be demonstrated by the record keeping in section C.1.
3. Compliance with section B.1 shall be demonstrated by the record keeping in sections C.1 and C.2.
4. Compliance with section B.3 shall be demonstrated by the record keeping in section C.4.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2.5 years of issuance of this permit;
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable VOC mass emission rate and the 50% control efficiency listed in term A.2.a of this emissions unit;
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 thru 4 and 10 or 25 of 40 CFR Part 60, Appendix A. "The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol (e.g., "the mass balance protocol approved on 10/25/95"). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases." - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.