

Facility ID: 1431384117 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.

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

Facility ID: 1431384117 Emissions Unit ID: P001 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - A 1495 bhp diesel engine with a 1000 kW emergency and peaking generator	OAC rule 3745-31-05(A)(3) PTI 14-05546	Particulate emissions (PE) shall not exceed 0.029 lb/mmBtu*; 0.29 TPY. Particulate matter less than 10 microns in diameter shall not exceed 0.024 lb/mmBtu* and 0.24 TPY. Sulfur dioxide (SO2) emissions shall not exceed 0.154 lb/mmBtu* and 1.54 TPY. Nitrogen oxide (NOx) emissions shall not exceed 15.87 lbs/hr* and 15.87 TPY. Carbon monoxide (CO) emissions shall not exceed 3.53 lbs/hr* and 3.53 TPY. Organic compound (OC) emissions shall not exceed 0.55 lb/hr* and 0.55 TPY. *These emission limitations are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits. See terms and conditions B.1 and B.2. See terms and condition A.2.2.d.
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-23-06(B). 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 3745-17-11(B)(5)(b)	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 3745-18-06(G)	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 3745-21-08(B)	See term and condition A.2.a.
	OAC rule 3745-23-06(B)	See term and condition A.2.b.

2. Additional Terms and Conditions

- (a) The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 by committing to comply with the best available technology requirements established in Permit to Install 14-05546.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by complying with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On February 15, 2005, OAC rule 3745-23-06 was received and therefore no longer a part of State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operational practices" still exists as part of the federally-approved SIP for Ohio.

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the visible emission limitations, mass emission limitations, hours of operation limitation and the use of diesel fuel with a maximum sulfur content of 0.3%.

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average, except as specified by rule.

B. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 2000 hours.
2. The permittee shall burn only low-sulfur diesel fuel in this emissions unit that is 0.3% sulfur, by weight, or less. Compliance with this specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of diesel fuel.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for this emissions unit:
 - a. the total hours of operation for this emissions unit for each month; and
 - b. the year-to-date summation of the hours of operation for this emissions unit.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of the fuel burned in this emissions unit.
3. For each shipment of diesel fuel (oil) received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate (in lbs/mmBtu). The SO₂ emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify the following:
 - a. each day when a fuel other than diesel fuel was burned in this emissions unit;
 - b. all exceedances of the annual hours of operation limitation (January 31 report only); and
 - c. all exceedances of the fuel sulfur content in term and condition B.2.
2. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Terms and Conditions.

E. Testing Requirements

1. Compliance with the mass emission limitations specified in this permit shall be determined in accordance with the following methods:

Emission Limitations:
 0.029 lb PE/mmBtu; 0.29 TPY PE
 0.024 lb PM₁₀/mmBtu; 0.24 TPY PM₁₀

Applicable Compliance Method:

The short term PE emission limitation was established based on the manufacturer's emission factor of 0.29 lb PE/hr and 0.24 lb PM₁₀/hr divided by the rated heat input, 10.1 mmBtu/hr, as submitted in the PTI application 14-05546 on March 5, 2004. Maximum PE emissions are at 100% load or 1495 bhp.

If required, the permittee shall demonstrate compliance with the hourly PE emission limitation through emission tests performed in accordance with Methods 1- 5 of 40 CFR Part 60, Appendix A. PM₁₀ was calculated at 0.822 times PE emissions.

Compliance with the annual emission limitations for the pollutants specified above are ensured if compliance is maintained with the maximum annual operating hours (i.e., 2000 hours per calendar year). The annual emissions shall be calculated by multiplying the hourly emission rate by the annual operating hours, and dividing by 2,000 lbs/ton.

2. Emission Limitations:
0.154 lb SO₂/mmBtu; 1.54 TPY SO₂

Applicable Compliance Method:
The short term SO₂ emission limitation was established by multiplying the manufacturer's emission factor of 1165 g/hr, as submitted in the PTI application 14-05546 on March 5, 2004, by 0.3/0.5 (permitted maximum to tested sulfur content ratio) by 0.0022046 lb/g, and divided by the rated heat input, 10.1 mmBtu/hr. Maximum SO₂ emissions occur at 100% load or 1495 bhp.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director. The SO₂ emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

Compliance with the annual emission limitations for the pollutant specified above are ensured if compliance is maintained with the maximum allowable fuel sulfur content and the maximum annual operating hours (i.e., 2000 hours per calendar year). The annual emissions shall be calculated by multiplying the hourly emission rate by the annual operating hours, and dividing by 2,000 lbs/ton.
 3. Emission Limitations:
15.87 lbs NO_x/hr; 15.87 TPY NO_x

Applicable Compliance Method:
The hourly NO_x emission limitation was established by multiplying the manufacturer's emission factor of 7200 g/hr, as submitted in the PTI application 14-05546 on March 5, 2004, by 0.0022046 lb/g. Maximum NO_x emissions occur at 75% load or 1121.25 bhp.

If required, the permittee shall demonstrate compliance with the hourly NO_x emission limitation through emission tests performed in accordance with Methods 1- 4 and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitations for the pollutant specified above are ensured if compliance is maintained with the maximum annual operating hours (i.e., 2000 hours per calendar year). The annual emissions shall be calculated by multiplying the hourly emission rate by the annual operating hours, and dividing by 2,000 lbs/ton.
 4. Emission Limitations:
3.53 lbs CO/hr; 3.53 TPY CO

Applicable Compliance Method:
The hourly CO emission limitation was established by multiplying the manufacturer's emission factor of 1600 g/hr, as submitted in the PTI application 14-05546 on March 5, 2004, by 0.0022046 lb/g. Maximum CO emissions occur at 100 % load or 1495 bhp.

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with Methods 1- 4 and 10 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitations for the pollutant specified above are ensured if compliance is maintained with the maximum annual operating hours (i.e., 2000 hours per calendar year). The annual emissions shall be calculated by multiplying the hourly emission rate by the annual operating hours, and dividing by 2,000 lbs/ton.
 5. Emission Limitations:
0.55 lb OC/hr; 0.55 TPY OC

Applicable Compliance Method:
The hourly OC emission limitation was established by multiplying the manufacturer's emission factor of 248 g/hr, as submitted in the PTI application 14-05546 on March 5, 2004, by 0.0022046 lb/g. Maximum OC emissions occur at 10 % load or 149.5 bhp.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitations for the pollutant specified above are ensured if compliance is maintained with the maximum annual operating hours (i.e., 2000 hours per calendar year). The annual emissions shall be calculated by multiplying the hourly emission rate by the annual operating hours, and dividing by 2,000 lbs/ton.
 6. Visible Emissions Limitation:
Visible PE from any stack shall not exceed 10% opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Test Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 7. Operating Hours Restriction:
2000 hours per calendar year

Applicable Compliance Method:
Compliance with the operating hours restriction in term and condition B.1 shall be determined by the record keeping requirements specified in term and condition C.1.
 8. Compliance with the fuel oil sulfur limitation in term B.2 shall be demonstrated by the record keeping in term C.3.
- F. **Miscellaneous Requirements**
1. None