

Facility ID: 1483060053 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: 1483060053 Emissions Unit ID: B002 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>
natural gas-fired boiler (with no. 2 fuel oil as a backup) with a maximum capacity of 51.6 mmBtu/hr	OAC rule 3745-31-05 (PTI 14-2586)	0.020 lb of particulate emissions (PE)/mmBtu of actual heat input  0.0006 lb of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input (when firing only natural gas)  0.03 lb of SO <sub>2</sub> /mmBtu of actual heat input (when firing no. 2 fuel oil)  0.14 lb of nitrogen oxides (NO <sub>x</sub> )/mmBtu of actual heat input  0.035 lb of carbon monoxide (CO)/mmBtu of actual heat input  0.003 lb of volatile organic compounds (VOC)/mmBtu of actual heat input
	40 CFR, Part 60, Subpart Dc	See A.2.a. and B.1. through B.3. The sulfur content limit established by this regulation is less stringent than that established pursuant to OAC rule 3745-31-05.  Visible particulate emissions from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except for one six-minute period per hour of not more than 27 % opacity.
	OAC rule 3745-17-07(A)	The visible emissions limitation established in this rule is less stringent than that established in 40 CFR, Part 60, Subpart Dc.
	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input

**2. Additional Terms and Conditions**

- (a) Should the permittee decide to change fuels, a permit to install application shall be submitted to the Hamilton County Department of Environmental Services for review and approval ninety days prior to the change.

**B. Operational Restrictions**

1. The maximum annual no. 2 fuel oil usage for B002 and B004 combined shall not exceed 37,000 gallons, based upon a rolling, 365-day summation of the no. 2 fuel oil daily usages.
2. The permittee shall burn only natural gas and/or no. 2 fuel oil in this emissions unit.
3. The quality of the oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.03 lb/mmBtu of actual heat input.

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

1. The permittee shall record and maintain the following information each day:
  - a. the amount, in gallons, of no. 2 fuel oil employed in this emissions unit;
  - b. the amount, in gallons, of no. 2 fuel oil employed in emissions unit B004;
  - c. the amount, in gallons, of no. 2 fuel oil employed in emissions units B002 and B004 combined (a + b); and
  - d. the rolling, 365-day summation of the number of gallons of no. 2 fuel oil used in emissions units B002 and B004 combined.
2. For each day during which the permittee burns a fuel other than natural gas and/or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall 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 SO<sub>2</sub> emission rate (in lbs/mmBtu). (The SO<sub>2</sub> 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 collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. 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, D4294, or D6010), or equivalent methods as approved by the Director.

**D. Reporting Requirements**

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any shipment of oil that does not meet the allowable SO<sub>2</sub> limitation specified in section A.1. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the no. 2 fuel oil usage restriction of 37,000 gallons, based upon a rolling, 365-day summation of the no. 2 fuel oil daily usages.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition 3 of this permit.

**E. Testing Requirements**

1. Compliance with the emission limitations in sections A.1. and A.2. and the usage restrictions in section B of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations -  
 0.020 lb of PE/mmBtu of actual heat input  
 0.0006 lb of SO<sub>2</sub>/mmBtu of actual heat input (when firing natural gas)  
 0.03 lb of SO<sub>2</sub>/mmBtu of actual heat input (when firing no. 2 fuel oil)  
 0.14 lb of NO<sub>x</sub>/mmBtu of actual heat input  
 0.035 lb of CO/mmBtu of actual heat input  
 0.003 lb of VOC/mmBtu of actual heat input

Applicable Compliance Method -  
 When firing natural gas, the permittee shall determine compliance with the above limits by multiplying the appropriate emission factor from AP-42, Chapter 1.4, Tables 1.4-1 and 1.4-2 by the maximum hourly natural gas consumption rate (mm cu. ft./hr) and dividing by the emissions unit's maximum heat input capacity (51.6 mmBtu/hr).

Based upon AP-42, 5th Edition, revised 7/98, the emission factors are as follows:

- i. for PE (filterable) - 1.9 lbs/mmcu.ft.;
- ii. for SO<sub>2</sub> - 0.6 lb/mmcu.ft.;
- iii. for NO<sub>x</sub> - 100 lbs/mmcu.ft.;
- iv. for CO - 84 lbs/mmcu.ft.; and
- v. for VOC - 5.5 lbs/mmcu.ft.

When firing no. 2 fuel oil, compliance shall be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hr) by the appropriate emission factor for no. 2 fuel oil [from AP-42, Chapter 1.3, Tables 1.3-1 and 1.3-3 (revised 9/98)], and then dividing by the maximum hourly heat input capacity of the emissions unit (51.6 mmBtu/hr).

Based on AP-42, 5th Edition (revised 9/98), the emission factors are as follows:

- i. for PE (filterable) - 2.0 lbs/1,000 gallons;
- ii. for SO<sub>2</sub> - 142S\* lbs/1,000 gallons;
- iii. for NO<sub>x</sub> - 20 lbs/1,000 gallons;
- iv. for CO - 5 lbs/1,000 gallons; and
- v. for VOC - 0.34 lb/1,000 gallons.

\* sulfur content of the fuel oil, in % by weight

Except as otherwise provided in the following paragraph, when firing fuel oil, compliance with the allowable SO<sub>2</sub>

emission limitation of 0.03 lb/mmBtu of actual heat input shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If required, the permittee shall determine compliance with the above emission limits based upon the following:

- a. for PE: Method 5, 40 CFR, Part 60, Appendix A;
- b. for NOx: Method 7, 40 CFR, Part 60, Appendix A;
- c. for SO2: Method 6, 40 CFR, Part 60, Appendix A;
- d. for VOC: Method 18, 40 CFR, Part 60, Appendix A; and
- e. for CO: Method 10, 40 CFR, Part 60, Appendix A.

Emission Limitation -

Visible particulate emissions from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except for one six-minute period per hour of not more than 27 % opacity.

Applicable Compliance Method -

Compliance with the above visible emissions limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 (Standards of Performance for New Stationary Sources").

Usage Restriction -

37,000 gallons of no. 2 fuel oil/rolling, 365-day summation

Applicable Compliance Method -

Compliance with the above usage restriction shall be determined based upon the record keeping requirements in section C.1. of the terms and conditions of this permit.

F. **Miscellaneous Requirements**

- 1. None