

Facility ID: 1483040008 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: 1483040008 Emissions Unit ID: B001 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>
Derated, 78 mmBtu/hr, Gas/Oil Fired Boiler	OAC rule 3745-35-07	See A.2.a and A.2.b.
	OAC rule 3745-17-07(A)(1)(a)	Visible emissions shall not exceed 20 % opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.22 lb particulate emissions (PE)/mmBtu actual heat input
	OAC rule 3745-18-06(C)	1.6 lbs SO2/mmBtu actual heat input

2. **Additional Terms and Conditions**
 - (a) The emissions of sulfur dioxide (SO2) from this emissions unit shall not exceed 98.3 tons per year as a rolling 12-month summation.
The emissions of nitrogen oxides (NOx) from this emissions unit shall not exceed 98.8 tons per year as a rolling 12-month summation.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet the following specifications on an as-received basis:
 - a. a sulfur content which is sufficient to comply with the allowable SO2 emission limitation of 1.6 lbs SO2/mmBtu actual heat input; and
 - b. a heat content greater than 150,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.
2. At no time shall the steam flow rate from this emissions unit exceed 61,893 pounds per hour (as an average over any one-hour period).
3. Pursuant to OAC rule 3745-17-10, the total heat input for this emissions unit is derated from 116 mmBtu/hr to 78 mmBtu/hr. (The derated total heat input of 78 mmBtu/hr corresponds to a steam load of 61,893 pounds per hour.) Using the derated total heat input, the allowable PE rate for this emissions unit, from Figure I of OAC rule 3745-17-10, is 0.22 pound PE per mmBtu actual heat input.

C. Monitoring and/or Record Keeping Requirements

1. 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 SO2 emission rate (in lbs/mmBtu).

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 the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Hamilton County Department of Environmental Services.
2. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the fuel oil usage rate, in gallons;

- b. the natural gas usage rate, in millions of cubic feet;
 - c. the rolling 12-month summation of the fuel oil usage rate, in gallons;
 - d. the rolling 12-month summation of the natural gas usage rate, in millions of cubic feet;
 - e. the SO₂ emissions, in tons;
 - f. the rolling 12-month summation of the SO₂ emissions, in tons;
 - g. the NO_x emissions, in tons; and
 - h. the rolling 12-month summation of the NO_x emissions, in tons.
3. The permittee shall continuously monitor and record the steam flow rate from this emissions unit.
- D. Reporting Requirements**
- 1. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (in gallons); and
 - b. the calculated sulfur dioxide emission rate (in pounds/mmBtu) for each shipment of oil received during the calendar quarter.

The permittee shall submit these reports to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover all the oil shipments received during the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
 - 2. If for any reason the steam flow rate from this emissions unit exceeds 61,893 pounds per hour, the permittee shall notify the Hamilton County Department of Environmental Services of the following information within 5 business days after the exceedance:
 - a. the date of the exceedance;
 - b. the time interval over which the exceedance occurred;
 - c. the value of the exceedance;
 - d. the cause(s) of the exceedance;
 - e. the corrective action which has been or will be taken to prevent similar exceedances in the future; and
 - f. a copy of the steam chart which shows the exceedance.
 - 3. The permittee shall submit, on a quarterly basis, reports that identify all exceedances of the rolling 12-month SO₂ and NO_x emission limitations. The permittee shall submit these reports to the Hamilton County Department of Environmental Services. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
 - 4. The permittee shall submit, on an annual basis, reports that summarize the total SO₂ and NO_x emissions from this emissions unit during the previous calendar year. The permittee shall submit each report to the Hamilton County Department of Environmental Services by February 15 of each year.
- E. Testing Requirements**
- 1. Compliance with the visible emission limitation in Section A.1. of these terms and conditions shall be determined in accordance with the methods outlined in OAC rule 3745-17-03(A).
 - 2. Compliance with the emissions limitations outlined in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Compliance with the PE limitation in section A.1. may be demonstrated by using the emission factor specified in AP-42 (Fuel Oil Combustion) in the following equation (where S is the actual, maximum weight % sulfur in the fuel):

$$9.19(S) + 3.22 \text{ LBS PM}/1000 \text{ gal} \times [1/\text{actual, maximum heat content (mmBtu}/1000 \text{ gal)}] = \text{LB PE}/\text{mmBtu}$$

If required, compliance shall be determined by performing emission tests in accordance with USEPA Methods 1 - 5.
 - b. Compliance with the SO₂ emission limitation in section A.1. may be demonstrated by using the emission factor specified in AP-42 (Fuel Oil Combustion) in the following equation (where S is the actual, maximum weight % sulfur in the fuel):

$$157(S) \text{ LBS SO}_2/1000 \text{ gal} \times [1/\text{actual, maximum heat content (mmBtu}/1000 \text{ gal)}] = \text{LBS SO}_2/\text{mmBtu}$$

If required, compliance shall be determined by performing emission tests in accordance with USEPA Methods 1 - 4, and 6.
 - c. Compliance with the rolling 12-month SO₂ emission limitation in section A.2. shall be demonstrated each month by adding the products of the following equations:

$0.6 \text{ LB SO}_2/\text{mmcf natural gas (AP-42 Natural Gas Combustion)} \times [\text{actual mmcf natural gas usage/rolling 12-month period}] \times \text{Ton}/2000 \text{ LBS} = \text{TPY SO}_2$
 $157(S^*) \text{ LBS SO}_2/1000 \text{ gal fuel oil (AP-42 Fuel Oil Combustion)} \times [\text{actual gallons fuel oil usage/rolling 12-month period}] \times \text{Ton}/2000 \text{ LBS} = \text{TPY SO}_2$

* S = the average sulfur content of the fuel oil for the rolling, 12-month period.

d. Compliance with the rolling 12-month NOx emission limitation in section A.2. shall be demonstrated each month by adding the products of the following equations:

$140 \text{ LBS NO}_x/\text{mmcf natural gas (AP-42 Natural Gas Combustion)} \times [\text{actual mmcf natural gas usage/rolling 12-month period}] \times \text{Ton}/2000 \text{ LBS} = \text{TPY NO}_x$
 $55 \text{ LBS NO}_x/1000 \text{ gal fuel oil (AP-42 Fuel Oil Combustion)} \times [\text{actual gallons fuel oil usage/rolling 12-month period}] \times \text{Ton}/2000 \text{ LBS} = \text{TPY NO}_x$

F. Miscellaneous Requirements

1. The following terms and conditions in this permit are federally enforceable: A - F.