

Facility ID: 1677010001 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: 1677010001 Emissions Unit ID: B005 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>
73 mmBtu/hr natural gas-fired boiler with No. 2 fuel oil backup, controlled with low NOx burner and/or flue gas recirculation technology	OAC rule 3745-31-05 (PTI 16-1522)	0.020 lb/mmBtu and 4.26 tpy of particulates 0.10 lb/mmBtu and 32.0 tpy of NOx 0.81 lb/mmBtu and 3.1 tpy of SO2 2.61 lbs/hr of CO
	40 CFR 60, Subpart Dc	Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	40 CFR 52.1881	See A.2.b below
	OAC rule 3745-17-10	See A.2.b below
	OAC rule 3745-18-06(D)	See A.2.b below
	OAC rule 3745-17-07(A)	See A.2.c below

2. Additional Terms and Conditions

- (a) The permittee shall employ a low-NOx burner and/or flue gas recirculation technology in this emissions unit.
The emission limitations required by this applicable rule are equal to or less stringent than the emission limitations established in accordance with "best available technology" under OAC rule 3745-31-05.
The emission limitations required by this applicable rule are equal to or less stringent than the emission limitations established in accordance with 40 CFR 60, Subpart Dc.

B. Operational Restrictions

1. The permittee shall burn only natural gas and/or No. 2 fuel oil (as a backup) as fuel in this emissions unit.
2. The quality of the fuel burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the sulfur dioxide emission limitations specified in section A.1 above. In no case shall the sulfur content of No. 2 fuel oil burned in this emissions unit exceed 0.5 percent, by weight.
3. The quantity of No. 2 fuel oil burned in this emissions unit shall not exceed 55,000 gallons per rolling, 12-month period.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall record each operating day the following information for this emissions unit:
 - a. the consumption of No. 2 fuel oil, in gallons, and the associated total heat input, in mmBtu;
 - b. the consumption of natural gas, in million cubic feet, and the associated total heat input, in mmBtu; and
 - c. the average hourly heat input, in mmBtu/hr.
2. The permittee shall generate and record the following monthly records, based on the record keeping requirements of section C.1.a of this permit:
 - a. the monthly consumption of No. 2 fuel oil; and
 - b. the rolling, 12-month summation of No. 2 fuel oil consumption.

3. The permittee shall maintain records of the fuel oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2, described below:

a. Alternative 1:

For each shipment of 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 sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide 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. Also, if necessary, the permittee shall maintain monthly records of the calculated sulfur dioxide emission rate based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all shipments of oil received during a calendar month.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon a volume-weighted average of the calculated sulfur dioxide emission rates from section C.3 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports which identify any records generated in accordance with section C.3 of this permit that show an exceedance of the 0.5 percent, by weight, sulfur content restriction on all No. 2 fuel oil burned in this emissions unit.
3. The permittee shall submit deviation (excursion) reports which identify any monthly record showing an exceedance of the rolling, 12-month fuel oil consumption limitation.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I: General Term and Condition 3 of this permit.
5. The permittee shall submit annual reports to the Director (the appropriate Ohio EPA District Office or local air agency) documenting the consumption of No. 2 fuel oil during the previous year's rolling, 12-month periods. The reports shall be submitted by February 15 of each year and shall cover operations during the previous calendar year (January through December). Short-term testing of this emissions unit (i.e., 1 hour per month to verify the emissions unit is still able to function using No. 2 fuel oil and 4 hours per year to calibrate this equipment) will not need to be reported if it is the only time when this emissions unit burns No. 2 fuel oil during the year.

E. Testing Requirements

1. Compliance with the emissions limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

20% opacity as a 6-minute average

Compliance Method:

If required, compliance shall be determined through visible particulate emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1).

Emission Limitation:

0.020 lb/mmBtu and 4.26 tpy of particulates

Compliance Method:

Compliance shall be demonstrated through emissions calculations using the particulate emission factors of AP-42, Tables 1.4-1 and 1.3-2 and the worst-case hourly fuel consumption:

For natural gas:

$$(6.2 \text{ lbs}/1,000,000 \text{ cu.ft.}) \times (68,803 \text{ cu.ft./hr}) \times (1 \text{ hr}/73 \text{ mmBtu}) = 0.006 \text{ lb/mmBtu}$$

$$(0.006 \text{ lb/mmBtu}) \times (8760 \text{ hr/yr}) \times (73 \text{ mmBtu/hr}) \times (1 \text{ ton}/2000 \text{ lbs}) = 1.92 \text{ tpy}$$

For No. 2 fuel oil:

$$(2.0 \text{ lbs}/1000 \text{ gal}) \times (521 \text{ gal/hr}) \times (1 \text{ hr}/73 \text{ mmBtu}) = 0.014 \text{ lb/mmBtu}$$

$$(55,000 \text{ gal/yr}) \times (2.0 \text{ lbs}/1000 \text{ gal}) \times (1 \text{ ton}/2000 \text{ lbs}) = 0.055 \text{ tpy}$$

Emission Limitation:

0.81 lb/mmBtu and 3.1 tpy of SO₂

Compliance Method:

When burning natural gas, compliance shall be assumed based on the negligible sulfur content of the fuel combusted.

Except as provided below, when No. 2 fuel oil is burned compliance with the allowable sulfur dioxide emission limitation shall be demonstrated through the record keeping and reporting requirements of sections C.3 and D.1, above.

If the sulfur content of each shipment of oil received during a calendar month does not indicate compliance on an "as-received" basis with the allowable emission limitation or if the sulfur content of each daily sample collected during a calendar month does not comply with the allowable emission limitation on an "as-burned" basis, based on the formula specified in OAC rule 3745-18-04(F), compliance with the allowable sulfur dioxide emission limitation may be based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all of the shipments received (Alternative 1) or burned (Alternative 2).

If required, compliance shall be demonstrated through emissions testing in accordance with methods 1-4 and method 6 or 6C of 40 CFR Part 60, Appendix A.

Emission Limitation:

0.10 lb/mmBtu and 32.00 tpy of NO_x

Compliance Method:

Compliance shall be demonstrated through emissions calculations using the NO_x emission factors of AP-42, Tables 1.4-1 and 1.3-2 and the worst-case hourly fuel consumption:

For natural gas:

$$(81 \text{ lbs}/1,000,000 \text{ cu.ft.}) \times (68,803 \text{ cu.ft./hr}) \times (1 \text{ hr}/73 \text{ mmBtu}) = 0.08 \text{ lb/mmBtu}$$

$$(0.08 \text{ lb/mmBtu}) \times (8760 \text{ hr/yr}) \times (73 \text{ mmBtu/hr}) \times (1 \text{ ton}/2000 \text{ lbs}) = 24.41 \text{ tpy}$$

For No. 2 fuel oil:

$$(20 \text{ lbs}/1000 \text{ gal}) \times (521 \text{ gal/hr}) \times (1 \text{ hr}/73 \text{ mmBtu}) = 0.14 \text{ lb/mmBtu}$$

$$(55,000 \text{ gal/yr}) \times (20 \text{ lbs}/1000 \text{ gal}) \times (1 \text{ ton}/2000 \text{ lbs}) = 0.55 \text{ tpy}$$

Emission Limitation:

2.61 lbs/hr of CO

Compliance Method:

Compliance shall be demonstrated through emissions calculations using the CO emission factors of AP-42, Tables 1.4-2 and 1.3-2 and the worst-case hourly fuel consumption:

For natural gas:

$$(37 \text{ lbs}/1,000,000 \text{ cu.ft.}) \times (68,803 \text{ cu.ft./hr}) = 2.55 \text{ lbs/hr}$$

For No. 2 fuel oil:

$$(5.0 \text{ lbs}/1000 \text{ gal}) \times (521 \text{ gal/hr}) = 2.61 \text{ lbs/hr}$$

If required, compliance shall be demonstrated through emissions testing in accordance with methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. None