Facility ID: 1431110128 Issuance type: Final State Permit To Operate

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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: 1431110128 Emissions Unit ID: B006 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 mmBtu/hr natural gas/No. 2 fuel oil-fired boiler	OAC rule 3745-31-05(A)(3) (PTI 14-4253)	See Sections A.2.a and A.2.b below. Compliance with this rule also includes compliance with 40 CFR, Part 60, Subpart Dc.
	40 CFR, Part 60, Subpart Dc	Visible particulate emissions (PE) shall not exceed 20% opacity, except for one six-minute period per hour of not more than 27% opacity.
	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the visible PE limitation established pursuant to 40 CFR, Part 60, Subpart Dc.
	OAC rule 3745-17-10(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(D)	The sulfur dioxide (SO2) emission limitation specified by this rule is less stringent than the SO2 emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

   (a) Mass emissions from this emissions unit shall not exceed the following amounts specified below:

   For Natural Gas:

   0.006 lb/mmBtu of PE; 2.59 tons per year (TPY) of PE

   0.006 lb/mmBtu of particulate matter emissions with a diameter of 10 microns or less (PM10); 2.59 TPY of PM10 emissions

   0.0006 lb/mmBtu of SO2 emissions; 0.25 TPY of SO2 emissions

   0.10 lb/mmBtu of nitrogen oxides (NOx) emissions; 43.80 TPY of NOx emissions

   0.06 lb/mmBtu of carbon monoxide (CO) emissions; 25.45 TPY of CO emissions

   0.006 lb/mmBtu of volatile organic compound (VOC) emissions; 2.42 TPY of VOC emissions
   Mass emissions from this emissions unit shall not exceed the following amounts specified below:

   For No. 2 Fuel Oil:

   0.0143 lb/mmBtu of PE; 1.88 TPY of PE

   0.0079 lb/mmBtu of PM10 emissions; 1.03 TPY of PM10 emissions

   0.304 lb/mmBtu of SO2 emissions; 39.94 TPY of SO2 emissions

   0.14 lb/mmBtu of NOx emissions; 18.75 TPY of NOx emissions

0.04 lb/mmBtu of CO emissions; 4.69 TPY of CO emissions

0.0014 lb/mmBtu of VOC emissions; 0.19 TPY of VOC emissions
Should the permittee decide to change fuels for this emissions unit, a Permit to Install application shall be submitted to the Hamilton County Department of Environmental Services for review and approval no later than 90 days prior to the change and a Permit to Install shall be obtained prior to the change.

B. **Operational Restrictions**

1. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

2. The sulfur content of the No. 2 fuel oil employed in this emissions unit shall not exceed 0.3%, by weight.

3. The total amount of No. 2 fuel oil used in this emissions unit shall not exceed 1,875,000 gallons per year based upon a rolling, 12-month summation.

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

1. 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 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. 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 SO2 emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. the total amount, in gallons, of No. 2 fuel oil employed in this emissions unit; and

   b. the updated, rolling 12-month summation of the No. 2 fuel oil usage (this shall include the total amount for the current month plus the total amount for the previous eleven calendar months).

D. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that specify any exceedance of the updated rolling, 12-month summation of the No. 2 fuel oil usage limitation.

2. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit to the Hamilton County Department of Environmental Services, on a quarterly basis, copies of the oil supplier's analyses for each shipment of No. 2 fuel oil which is received for burning in this emissions unit. The oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) of each shipment of oil. The following information shall also be included with the copies of the oil supplier's analyses:

   a. the total quantity of oil received in each shipment, in gallons; and

   b. the calculated SO2 emission rate (lbs/mmBtu of actual heat input) for each shipment as calculated pursuant to OAC rule 3745-18-04(F).

   These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarter.

4. 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.

E. **Testing Requirements**

1. Compliance with the emission limitations and visible PE limitation specified in Section A, and the sulfur content and No. 2 fuel oil usage restrictions specified in Section B, shall be determined by the following methods:
   Visible PE Limitation: Visible PE shall not exceed 20% opacity, except for one six-minute period per hour of not more than 27% opacity.

   Applicable Compliance Method: Compliance with the visible PE limitation shall be determined by the method specified in 40 CFR, Part 60, Appendix A, Test Method 9 pursuant to 40 CFR, Part 60.46.
   Emission Limitations: The permittee shall not exceed the following TPY emission limitations:

   Natural Gas No. 2 Fuel Oil

   2.59 TPY of PE 1.88 TPY of PE
   2.59 TPY of PM10 1.03 TPY of PM10
   0.25 TPY of SO2 39.94 TPY of SO2
   43.80 TPY of NOx 18.75 TPY of NOx
   25.45 TPY of CO 4.69 TPY of CO
   2.42 TPY of VOC 0.19 TPY of VOC

   Applicable Compliance Method: The TPY emission limitations were established by multiplying the short-term emission limitations by 8,760 hours per year and dividing by the emissions unit's maximum rated heat input capacity (mmBtu/hr). Compliance with the TPY emission limitations may be assumed provided that the permittee demonstrates compliance with the short-term (lb/mmBtu) emission limitations and the annual No. 2 fuel oil usage restriction.
   Emission Limitations: The permittee shall not exceed the following lb/mmBtu emission limitations:

Natural Gas No. 2 Fuel Oil

0.006 lb/mmBtu of PE 0.0143 lb/mmBtu of PE
0.006 lb/mmBtu of PM10 0.0079 lb/mmBtu of PM10
0.0006 lb/mmBtu of SO2 0.304 lb/mmBtu of SO2
0.10 lb/mmBtu of NOx 0.14 lb/mmBtu of NOx
0.06 lb/mmBtu of CO 0.04 lb/mmBtu of CO
0.006 lb/mmBtu of VOC 0.0014 lb/mmBtu of VOC

Applicable Compliance Method: Except as otherwise provided below, compliance with the emission limitations specified above shall be based upon the use of the emission factors as specified in U.S. EPA reference document AP-42, Fifth Edition, Chapter 1, External Combustion Sources.

Compliance with the SO2 emission limitation, when burning No. 2 fuel oil, shall be determined by the record keeping requirements specified in Section C.2.

If required, the permittee shall demonstrate compliance with the SO2 emission limitations through emission tests performed in accordance with 40 CFR, Appendix A, Methods 1-4, and 6.

If required, the permittee shall demonstrate compliance with the PE and PM10 emission limitations through emission tests performed in accordance with 40 CFR, Appendix A, Methods 1-5.

If required, the permittee shall demonstrate compliance with the NOx emission limitations through emission tests performed in accordance with 40 CFR, Appendix A, Methods 1-4, and 7.

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

If required, the permittee shall demonstrate compliance with the VOC emission limitations through emission tests performed in accordance with 40 CFR, Appendix A, Methods 1-4, and 25.
Sulfur Content Restriction: sulfur content of No. 2 fuel oil shall not exceed 0.3%, by weight

Applicable Compliance Method: Compliance with the sulfur content restriction shall be determined by the record keeping requirements specified in Section C.2.
Fuel Oil Usage Restriction: 1,875,000 gallons per year of No. 2 fuel oil, based upon a rolling, 12-month summation

Applicable Compliance Method: Compliance with the No. 2 fuel oil usage restriction shall be determined by the record keeping requirements specified in Section C.3.

F. **Miscellaneous Requirements**

1. None