

Facility ID: 0819780231 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: 0819780231 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>
71.19 mmBTU/hr Natural Gas Turbine Unit No. 51801	OAC rule 3745-31-05 (PTI 08-3814)	25 ppmvd NOx at 15 percent oxygen, 7.14 lbs NOx/hr, 31.27 TPY NOx; 8.69 lbs CO/hr, 38.06 TPY CO; 3.77 lbs OC/hr, 16.53 TPY OC; 0.05 lb SO2/hr, 0.21 TPY SO2; 0.020 lb PM/mmBTU, 6.24 TPY PM/PM10; visible particulate emissions shall not exceed 10 percent, as a 6-minute average, except as provided by rule
	OAC rule 3745-17-07 (A) OAC rule 3745-17-11 OAC rule 3745-18-06 (F) 40 CFR Part 60 Subpart GG	The limitations specified by these rules are less stringent than that established by OAC rule 3745-31-05 for nitrogen oxides, sulfur dioxide and visible emission opacity.

2. **Additional Terms and Conditions**
 - (a) None

B. Operational Restrictions

1. This emissions unit shall only be fired with pipeline natural gas fuel containing no organically bound nitrogen.
2. In accordance with 40 CFR Part 60.333 (b), the fuel burned in this emissions unit shall not contain sulfur in excess of 0.8 percent by weight.
3. The permittee shall use a dry low-NOx combustor in this emissions unit.

C. Monitoring and/or Record Keeping Requirements

1. In accordance with the 40 CFR Part 60.334 (b)(2), the sulfur content of the fuel being fired in this emissions unit shall be determined and recorded daily unless a custom fuel sampling schedule has been approved by the Administrator. In accordance with the USEPA Guidance memorandum entitled "Authority for Approval of Custom Fuel Monitoring Schedules Under NSPS Subpart GG" issued August 14, 1987, the custom fuel sampling schedule shall include the following for sulfur monitoring:
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and STM D4084-82 as referenced in 40 CFR 60.335 (b)(2).
 - b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If after the monitoring required in item b. above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

- d. Should any sulfur analysis as required in items b. and c. above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Director (the appropriate Ohio EPA District Office or local air agency of such excess emissions and the custom schedule shall be re-examined by the USEPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- e. If there is a change in fuel supply, the owner or operator must notify the Director (the appropriate Ohio EPA District Office or local air agency) of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes an identification of any period during which the fuel-bound nitrogen of the fuel is greater than the fuel-bound nitrogen of the fuel used during the performance test.
2. The permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes an identification of any period during which the sulfur content of the fuel being fired in this emissions unit exceeds 0.8 percent by weight.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 6 months prior to permit expiration.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x and CO.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for CO Method 10 of 40 CFR Part 60, Appendix A; and for NO_x, Method 20 of 40 CFR Part 60, Appendix A. The span values shall be 300 ppm of nitrogen oxides and 21 percent oxygen. The NO_x emission rate shall be determined at 30, 50, 75 and 100 percent of peak load or at four points in the normal operating range of the emissions unit, including the minimum point in the range and peak load.
 - d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time (s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

2. Compliance with the emissions limitations specified in section A.1. shall be determined in accordance with the following methods:
Emission Limitation-
25 ppmvd NO_x at 15 percent oxygen, 7.14 lbs NO_x/hr

Applicable Compliance Method-

Compliance shall be based upon emissions testing specified in section E.1.a and E.1.b.

For references purposes, this emissions unit was last tested on January 12, 2000. The actual NO_x emission rates were determined to be 14.6 ppm @ 15% oxygen and 3.76 lbs/hr.

Emission Limitation-
31.27 TPY NO_x

Applicable Compliance Method-

The 31.27 TPY limitation was developed by multiplying the 7.14 lbs NO_x/hr by the maximum operating schedule of 8760 hrs/yr and converting to tons. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation-
8.69 lbs CO/hr

Applicable Compliance Method-

Compliance shall be based upon emissions testing specified in section E.1.a and E.1.b.

For references purposes, this emissions unit was last tested on January 12, 2000. The actual CO emission rate was determined to be 5.38 lbs/hr.

Emission Limitation-
38.06 TPY CO

Applicable Compliance Method-

The 38.06 TPY limitation was developed by multiplying the 8.69 lbs CO/hr by the maximum operating schedule of 8760 hrs/yr and converting to tons. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation-

3.77 lbs OC/hr

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum heat input capacity of the emissions unit (71.19 mmBtu/hr) by the OC emission factor (0.053 lb/mmBtu) from the "Compilation of Air Pollutant Emission Factors," AP-42, Fifth Edition, 1995, Table 3.2-1.

Emission Limitation-
16.53 TPY OC

Applicable Compliance Method-

The 16.53 TPY limitation was developed by multiplying the 3.77 lbs CO/hr by the maximum operating schedule of 8760 hrs/yr and converting to tons. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation-
0.05 lb SO₂/hr

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum fuel burning capacity of the emissions unit (0.079631 mmcuft/hr) by the SO₂ emission factor (0.6 lb SO₂/mmcuft) from the "Compilation of Air Pollutant Emission Factors," AP-42, Fifth Edition, 1995, Section 3.2.

Emission Limitation-
0.21 TPY SO₂

Applicable Compliance Method-

The 0.21 TPY limitation was developed by multiplying the 0.05 lbs SO₂/hr by the maximum operating schedule of 8760 hrs/yr and converting to tons. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation-
0.020 lb PM/mmBtu

Applicable Compliance Method-

Compliance shall be based on the particulate emissions factor (0.0193 lb/mm BTU) from the "Compilation of Air Pollutant Emission Factors," AP-42, Fifth Edition, Table 3.1-1.

Emission Limitation-
6.24 TPY PM/PM₁₀

Applicable Compliance Method-

The 6.24 TPY limitation was developed by multiplying the 0.020 lb/mmBtu limitation by the maximum hourly heat input capacity of 71.19 mmBtu/hr. Then the result, 1.42 lbs/hr, was multiplied by the maximum operating schedule of 8760 hrs/yr, and converted to tons. Therefore, since compliance with the lb/mmBtu is demonstrated through the application of the AP-42 emission factor, compliance will also be shown with the annual limitation.

Emission Limitation-
10 percent opacity visible emission limitation, as a six-minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

F. Miscellaneous Requirements

1. The permittee is hereby notified that this permit, and all agency records concerning the operating of this permitted emissions unit are subject to public disclosure in accordance with OAC rule 3745-49-03.