

GENERAL PERMIT 1.7 TEMPLATE

**25-29.9 MMBTU/HR MAXIMUM HEAT INPUT NATURAL GAS AND NO. 2 OIL FIRED BOILER THAT IS CONSTRUCTED,
MODIFIED OR RECONSTRUCTED ON OR PRIOR TO JUNE 9, 1989**

C. Emissions Unit Terms and Conditions

Note: The following are the terms and conditions for a General PTIO to be issued to a non-Title V facility

1. [Emissions Unit ID], [Company Equipment ID]

Operations, Property and/or Equipment Description:

[DAPC Description]

a) 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.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.014 lb/mmBtu and 1.31 tons per year (TPY). Organic compound (OC) emissions shall not exceed 0.011 lb/mmBtu and 1.41 TPY. Nitrogen oxides (NOx) emissions shall not exceed 0.14 lb/mmBtu and 15.04 TPY. Carbon monoxide (CO) emissions shall not exceed 0.082 lb/mmBtu and 10.79 TPY. Sulfur dioxide (SO ₂) emissions shall not exceed 0.50 lb/mmBtu and 24.87 TPY. Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one

		6-minute period per hour of not more than 27% opacity.
b.	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(D)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-21-07(B), 3745-21-08(B), and 3745-23-06(B).
c.	OAC rule 3745-21-08(B)	The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-07(B)	See b)(2)d.
e.	OAC rule 3745-23-06(B)	See b)(2)c.
f.	OAC rule 3745-31-05(C) (to avoid state modeling)	This emissions unit shall not use more than 700,000 gallons of No. 2 fuel oil per rolling, 12-month period.

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of natural gas or No. 2 fuel oil, a sulfur content limitation for No. 2 fuel oil, and the emission limitations listed in b)(1) above.
- b. The lb/mmBtu actual heat input and tons per year emission limitations, except for SO₂, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- c. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) and 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).
- d. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
- (2) The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.50 lb/mmBtu of actual heat input and the sulfur content limitation for No. 2 fuel oil of less than or equal to 0.5 weight per cent sulfur.
- (3) The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 700,000 gallons per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the No. 2 fuel oil usage levels specified in the following table:

Month	Maximum Allowable Cumulative Usage (gallons)
1	147,000
1-2	294,000
1-3	441,000
1-4	588,000
1-5	700,000
1-6	700,000
1-7	700,000
1-8	700,000
1-9	700,000
1-10	700,000
1-11	700,000
1-12	700,000

After the first 12 calendar months of operation, compliance with the annual No. 2 fuel oil usage limitation shall be based upon a rolling, 12-month summation of the usage rates.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain records of the 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 lb/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.

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 lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

c. 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 and D4294), or equivalent methods as approved by the Director.

(2) For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(3) The permittee shall maintain monthly records of the following information:

a. The total volume of natural gas (mmft³) burned in this emissions unit.

b. The total number of gallons of No. 2 fuel oil used in this boiler for each month.

c. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the gallons of No. 2 fuel oil used.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

e) Reporting Requirements

(1) The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.

- (2) The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation and/or sulfur content limitation based upon the record keeping requirements from d)(1) above.
- (3) The notifications identified in e)(1) and e)(2) shall include a copy of such record and shall be sent to the Director (the appropriate local air agency or District Office) within 45 days after the deviation occurs.
- (4) The permittee shall submit annual reports that specify the total SO₂ emissions from this emissions unit during the previous twelve-month period. The reports shall be submitted with the annual Permit Evaluation Reports by the due date identified in the Authorization section of this permit.
- (5) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month No. 2 fuel oil usage limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative No. 2 fuel oil usage limitations. These reports shall be submitted with the annual Permit Evaluation Reports by the due date identified in the Authorization section of this permit .
- (6) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) **Testing Requirements**

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
 - a. Emission Limitation(s):

10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method(s):

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
 - b. Emission Limitation(s):

0.14 lb/mmBtu, 15.04 TPY NO_x emissions

Applicable Compliance Method(s):

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 20 lbs NO_x/10³ gal emission factor into lb NO_x/mmBtu by dividing by 140 mmBtu/10³ gal. Compliance with the annual emission limitation may be demonstrated by multiplying the lb NO_x/mmBtu value

by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 7.

c. Emission Limitation(s):

0.082 lb/mmBtu, 10.79 TPY CO emissions

Applicable Compliance Method(s):

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 84 lbs CO/10⁶ scf emission factor into lb CO/mmBtu by dividing by 1,020 Btu/scf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb CO/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 10.

d. Emission Limitation(s):

0.011 lb/mmBtu, 1.41 TPY OC emissions

Applicable Compliance Method(s):

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 11 lbs TOC/10⁶ scf emission factor into lb TOC/mmBtu by dividing by 1,020 Btu/scf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb TOC/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 25.

e. Emission Limitation(s):

0.50 lb/mmBtu, 24.87 TPY SO₂ emissions

Applicable Compliance Method(s):

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based

upon the record keeping in d)(1) and d)(3). Compliance with the annual emission limitation shall be determined by multiplying the annual average lb SO₂/mmBtu value by the annual average heat content and the total gallons on No. 2 fuel oil burned, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

f. Emission Limitation(s):

0.014 lb/mmBtu, 1.31 TPY PE

Applicable Compliance Method(s):

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs PE/10³ gal emission factor into lbs PE/mmBtu by dividing by 140 mmBtu/10³ gal. Compliance with the annual emission limitation may be demonstrated by multiplying the lb PE/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

g. Sulfur Content Limitation(s):

≤ 0.5 weight percent sulfur

Applicable Compliance Method(s):

Compliance shall be demonstrated by the record keeping requirement described in paragraph d)(1).

g) Miscellaneous Requirements

(1) None.