

**GENERAL PERMIT 1.16 TEMPLATE**  
**>10-19.9 MMBTU/HR MAXIMUM HEAT INPUT NATURAL GAS AND NO. 2 OIL FIRED BOILER THAT IS  
CONSTRUCTED, MODIFIED OR RECONSTRUCTED AFTER JUNE 4, 2010**

## **B. Facility-Wide Terms and Conditions**

Note: The following are the terms and conditions for a General PTI to be issued to a **Title V** facility that is a **major source of HAP**

**Permit Number:** [Permit Number]

**Facility Name:** [Facility Name]

**Facility ID:** [Facility ID]

**Working Copy of a Permit in Progress**

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.

## **C. Emissions Unit Terms and Conditions**

**1. [Emissions Unit ID], [DAPC Description]**

**Operations, Property and/or Equipment Description:**

[DAPC Description]

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(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 are identified below. 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)	The emissions unit shall be designed to emit no more than the following:  0.14 lb of nitrogen oxides (NO <sub>x</sub> ) emissions per MMBtu of heat input.  See b)(2)a. and b)(2)b. below.
b.	OAC rule 3745-31-05(A)(3)(ii)	See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack(s) serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/MMBtu of actual heat input when burning natural gas and 0.040 lb/MMBtu of actual heat input when burning No. 2 fuel oil.
e.	OAC rules 3745-18-06 to 3745-18-94	When burning natural gas, the requirements of these rules do not apply.  When burning No. 2 fuel oil, the emission limitations specified by these rules are less stringent than the potential emissions of the boiler.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-110-03(K)(1)	The requirements of this rule do not apply because the maximum heat input is less than 20 MMBtu/hr.
g.	40 CFR Part 60, Subpart Dc	When burning No. 2 fuel oil, SO <sub>2</sub> emissions shall not exceed 0.50 lb/MMBtu heat input from oil; or, as an alternative, No. 2 fuel oil combusted in this emissions unit shall not contain greater than 0.5 weight percent sulfur. [40 CFR 60.42c(d)]  See b)(2)d. and b)(2)e. below.
h.	40 CFR Part 63, Subpart DDDDD	See b)(2)f., c)(2), d)(3) and e)(5) below.

(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.
- b. The lb/MMBtu actual heat input emission limitation is based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with this emission limitation.
- c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the carbon monoxide (CO), PE, sulfur dioxide (SO<sub>2</sub>), and volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons/year.
- d. The permittee shall comply with the additional terms and conditions required under 40 CFR Part 60, Subpart Dc, including the following sections:

60.40c(b)	Delegation
60.41c	Definitions
60.42c(i)	The SO <sub>2</sub> emission limit and fuel oil sulfur limit apply at all times, including periods of startup, shutdown, and malfunction.

- e. The permittee shall comply with the applicable requirements identified in 40 CFR Part 60, Subpart Dc in accordance with the applicable provisions of 40 CFR Part 60, Subpart A.
- f. The permittee shall comply with the additional terms and conditions required under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7510(e)	Initial tune-up procedures.
63.7515(d)	Each annual tune-up specified in 63.7540(a)(10) must be no more than 13 months after the previous tune-up.

c) Operational Restrictions

- (1) The permittee shall only burn natural gas or fuel oil that contains no more than 0.50 weight percent sulfur in the steam generating unit(s) in order to demonstrate compliance with the applicable SO<sub>2</sub> emission limit in 40 CFR Part 60, Subpart Dc. The fuel certification shall include the information identified in 40 CFR 60.48c(f)(1).
- (2) Per 40 CFR 63.7575, this boiler is designated as a “unit designed to burn gas 1 subcategory”, which includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain a copy of the notification of the date of initial startup of the steam generating unit(s) required per 40 CFR 60.7. This notification should include the design heat input capacity and identification of the fuels to be combusted in each steam generating unit subject to Part 60, Subpart Dc.
- (2) The permittee shall comply with the monitoring and recordkeeping requirements of 40 CFR Part 60, Subpart Dc, including the following sections:

60.42c(h)(1)	Compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier.
60.48c(f)	Fuel supplier certification requirements.
60.48c(g)	Monthly records for the amount of each fuel combusted or total amount of each steam generating unit fuel delivered to the property.
60.48c(i)	The requirements of this rule are less stringent than the requirements of A.4.b.

- (3) The permittee shall comply with the monitoring and recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7540(a)(10)	Annual tune-up requirements
63.7555(a)(1)	Copy of each notification and report submitted.

63.7555(h)	Records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.
63.7560	Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The first 2 years of records shall be retained on-site.

e) Reporting Requirements

- (1) Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
- a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and,
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to the appropriate Local Air Agency or District Office and to:

Ohio Environmental Protection Agency  
 DAPC - Permit Management Unit  
 P.O. Box 163669  
 Columbus, Ohio 43216-3669

- (2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (4) The permittee shall comply with the reporting requirements of 40 CFR Part 60, Subpart Dc, including the following sections:

60.48c(a)	Submit notification of the date of construction, reconstruction, and actual startup, including the items detailed in 60.48(a)(1)-(4).
60.48c(d)	Submit fuel oil sulfur limit reports.
60.48c(e)	Submit reports including the calendar dates covered in the reporting period and fuel supplier certification as described in 60.48c(f).
60.48c(j)	Reports shall be submitted to the Administrator and be postmarked by the 30th day following the end of the reporting period (reports due: January 31 (covering July to December) and July 31 (covering January to June)).

- (5) The permittee shall comply with the reporting requirements under 40 CFR Part 63, Subpart DDDDD, including the following sections:

63.7530(f)	Notification of Compliance Status containing the results of the initial compliance demonstration.
63.7545(e)(1)	Notification of Compliance Status.
63.7545(e)(8)	Notification of Compliance Status certification(s) of compliance.
63.7550(b)	Compliance reports shall be submitted annually for the period covering January 1 to December 31. The report shall be postmarked or submitted by January 31.
63.7550(c)	Compliance report.
63.7550(h)(3)	Submission of reports to U.S. EPA

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation(s):

The emissions unit shall be designed to emit no more than 0.14 lb/MMBtu NO<sub>x</sub> emissions.

Applicable Compliance Method(s):

The emission limitation is 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) for fuel oil combustion. Compliance with the lb/MMBtu emission limitation may be determined by converting the 20 lb NO<sub>x</sub>/1000 gal emission factor into lb NO<sub>x</sub>/MMBtu by dividing by 140 MMBtu/1000 gal (i.e., 20 lb NO<sub>x</sub>/1000 gal / 140 MMBtu/1000 gal = 0.14 lb NO<sub>x</sub>/MMBtu).

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.

b. Emission Limitation(s):

Visible particulate emissions from the exhaust stack(s) serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method(s):



If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation(s):

PE shall not exceed 0.020 lb/MMBtu of actual heat input when burning natural gas and 0.040 lb/MMBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method(s):

Compliance with the 0.020 lb/MMBtu of actual heat input when burning natural gas may be determined by converting the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98) for natural gas combustion (1.9 lb PE/10<sup>6</sup> mmcf) into lb PE/MMBtu by dividing by 1020 Btu/scf (i.e., 1.9 lb filterable PE/10<sup>6</sup> mmcf / 1020 Btu/scf = 0.0019 lb PE/MMBtu).

Compliance with the 0.040 lb/MMBtu of actual heat input when burning No. 2 fuel oil may be determined by converting the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (5/10) for distillate fuel oil combustion (2 lb filterable PE/1000 gal) into lb PE/MMBtu by dividing by 140 MMBtu/1000 gal (i.e., 2 lb PE/1000 gal / 140 MMBtu/1000 gal = 0.014 lb PE/MMBtu).

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 5.

d. Emission Limitation(s):

As specified in OAC rules 3745-18-06 to 3745-18-94.

Applicable Compliance Method(s):

Compliance with the emission limitation specified by this rule may be determined by converting the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (5/10) for distillate fuel oil combustion (142\*S lb SO<sub>2</sub>/1000 gal where S equals the sulfur content (%) of the fuel oil) into lb SO<sub>2</sub>/MMBtu by dividing by 140 MMBtu/1000 gal (i.e., [142 \* 0.0015] lb SO<sub>2</sub>/1000 gal / 140 MMBtu/1000 gal = 0.0015 lb SO<sub>2</sub>/MMBtu). The sulfur content of ultra-low sulfur distillate oil is 0.0015%.

e. Sulfur Content Limitation(s):

When burning No. 2 fuel oil, SO<sub>2</sub> emissions shall not exceed 0.50 lb/MMBtu heat input from oil; or, as an alternative, No. 2 fuel oil combusted in this emissions unit shall not contain greater than 0.5 weight percent sulfur.

Applicable Compliance Method(s):

Compliance shall be demonstrated by the certification from the fuel supplier as described in 40 CFR 60.48c(f) and paragraph d)(2).

g) Miscellaneous Requirements

(1) None.