



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

06/20/01

**CERTIFIED MAIL**

**RE: Final Title V Chapter 3745-77  
permit**

08-57-04-0180  
Miami Valley Hospital  
JIM HARTKE  
ONE WYOMING STREET  
DAYTON, OH 45409-2793

Dear JIM HARTKE:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

If you have any questions, please contact RAPCA.

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: RAPCA  
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: <b>06/20/01</b>	Effective Date: <b>06/20/01</b>	Expiration Date: <b>06/20/06</b>
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This document constitutes issuance of a Title V permit for Facility ID: 08-57-04-0180 to:

Miami Valley Hospital  
ONE WYOMING STREET  
DAYTON, OH 45409-2793

**Emissions Unit ID (Company ID)/Emissions Unit Activity Description**

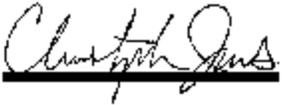
B001 (B001 - GEN) 5.9 MMBTU/HR STAND-BY GENERATOR	B008 (B008) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER	8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER
B002 (B002 - GEN) 5.9 MMBTU/HR STAND-BY GENERATOR	B009 (B009) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER	B014 (B014 - GEN) 3.0 MMBTU/HR STAND-BY GENERATOR
B003 (B003 - GEN) 5.9 MMBTU/HR STAND-BY GENERATOR	B010 (B010) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER	B015 (B015) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER
B004 (B004 - GEN) 10.8 MMBTU/HR STAND-BY GENERATOR	B011 (B011) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER	B016 (B016) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER
B005 (B005 - GEN) 10.8 MMBTU/HR STAND-BY GENERATOR	B012 (B012) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER	B017 (B017 - GEN) 15.7 MMBTU/HR STAND-BY GENERATOR
B006 (B006 - GEN) 10.8 MMBTU/HR STAND-BY GENERATOR	B013 (B013)	
B007 (B007) 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER		

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

RAPCA  
451 West Third Street  
PO Box 972  
Dayton, OH 45422  
(937) 225-4435

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in black ink, appearing to read "Christopher Jones", is positioned above a solid black horizontal line.

Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Section

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31

and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is

grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

## **8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

## **9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

## **10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

- iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

## **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

## **15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

## **16. Off Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

## **17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

## **18. Insignificant Activity**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

## **B. State Only Enforceable Section**

### **1. Permit to Install Requirement**

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### **2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **3. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### **4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## **Part II - Specific Facility Terms and Conditions**

### **A. State and Federally Enforcable Section**

**None**

### **B. State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

T001 10,000-gallon diesel fuel storage tank  
T002 8,000-gallon kerosene/jet fuel storage tank  
T003 15,000-gallon diesel fuel storage tank  
Z001 10,000-gallon diesel fuel storage tank

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a Permit to Install for the emissions unit.

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B001 - GEN (B001)  
**Activity Description:** 5.9 MMBTU/HR STAND-BY GENERATOR

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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>
5.9 mmBtu/hour, diesel-fired standby generator #1 (BP)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(D) PTI 08-3403	0.43 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		6.50 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.38 TPY particulates
		1.71 lbs/hour SO <sub>2</sub>
		26.02 lbs/hour NO <sub>x</sub>
	5.6 lbs/hour and 1.40 TPY carbon monoxide (CO)	
	2.54 lbs/hour and 0.64 TPY organic compounds (OC)	
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 1.71 lbs/hour SO<sub>2</sub>, 26.02 lbs/hour NO<sub>x</sub>, 5.6 lbs/hour CO, and 2.54 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 21,000 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, OC, particulates, and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation -  
0.43 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.d Emission Limitation -  
6.50 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

- 1.f** Emission Limitation -  
21,000 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.g** Emission Limitation -  
0.44 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

- 1.h** Emission Limitation -  
1.71 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.29 lb SO<sub>2</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.i** Emission Limitation -  
26.02 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.j** Emission Limitation -  
1.40 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
1.40 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.l** Emission Limitation -  
2.54 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
0.64 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B002 - GEN (B002)  
**Activity Description:** 5.9 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
5.9 mmBtu/hour, diesel-fired standby generator #2 (BP)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(D) PTI 08-3403	0.43 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		6.50 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.38 TPY particulates
		1.71 lbs/hour SO <sub>2</sub>
		26.02 lbs/hour NO <sub>x</sub>
		5.6 lbs/hour and 1.40 TPY carbon monoxide (CO)
		2.54 lbs/hour and 0.64 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 1.71 lbs/hour SO<sub>2</sub>, 26.02 lbs/hour NO<sub>x</sub>, 5.6 lbs/hour CO, and 2.54 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 21,000 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, OC, particulates, and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation -  
0.43 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.d Emission Limitation -  
6.50 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

- 1.f** Emission Limitation -  
21,000 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.g** Emission Limitation -  
0.44 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

- 1.h** Emission Limitation -  
1.71 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.29 lb SO<sub>2</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.i** Emission Limitation -  
26.02 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.j** Emission Limitation -  
1.40 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
1.40 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.l** Emission Limitation -  
2.54 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
0.64 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B003 - GEN (B003)  
**Activity Description:** 5.9 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
5.9 mmBtu/hour, diesel-fired standby generator #3 (BP)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(D) PTI 08-3403	0.43 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		6.50 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.38 TPY particulates
		1.71 lbs/hour SO <sub>2</sub>
		26.02 lbs/hour NO <sub>x</sub>
	5.6 lbs/hour and 1.40 TPY carbon monoxide (CO)	
	2.54 lbs/hour and 0.64 TPY organic compounds (OC)	
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 1.71 lbs/hour SO<sub>2</sub>, 26.02 lbs/hour NO<sub>x</sub>, 5.6 lbs/hour CO, and 2.54 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 21,000 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, OC, particulates, and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation -  
0.43 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.d Emission Limitation -  
6.50 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

- 1.f** Emission Limitation -  
21,000 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.g** Emission Limitation -  
0.44 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

- 1.h** Emission Limitation -  
1.71 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.29 lb SO<sub>2</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.i** Emission Limitation -  
26.02 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.j** Emission Limitation -  
1.40 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
1.40 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.l** Emission Limitation -  
2.54 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (5.9 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
0.64 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B004 - GEN (B004)  
**Activity Description:** 10.8 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
10.8 mmBtu/hour, diesel-fired standby generator #1 (NW)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-18-06(G)	0.5 lb sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input
	OAC rule 3745-31-05(D) PTI 08-3403	0.79 TPY SO <sub>2</sub> , as a rolling, 12-month summation
		11.97 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.82 TPY particulates
		47.9 lbs/hour NO <sub>x</sub>
		10.32 lbs/hour and 2.58 TPY carbon monoxide (CO)
		4.7 lbs/hour and 1.20 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 47.9 lbs/hour NO<sub>x</sub>, 10.32 lbs/hour CO, and 4.7 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 38,500 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.
- 3.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall maintain monthly records of the total quantity of oil received in each shipment, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu) for all the shipments of oil during the calendar month.
4. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Director (appropriate Ohio EPA District Office or local air agency) in writing of any monthly composite sample of oil that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1. The notification shall include a copy of such record and shall be sent to the Director (appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

### V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

#### Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation -  
0.5 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

Compliance shall be based upon the record keeping and analysis requirements specified in Sections A.III.2 and 3 of this permit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

**1.d** Emission Limitation -  
0.79 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.e** Emission Limitation -  
11.97 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.f** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

**1.g** Emission Limitation -  
38,500 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.h** Emission Limitation -  
0.82 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.i** Emission Limitation -  
47.9 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.j** Emission Limitation -  
10.32 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
2.58 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

- 1.l** Emission Limitation -  
4.7 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
1.20 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B005 - GEN (B005)  
**Activity Description:** 10.8 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
10.8 mmBtu/hour, diesel-fired standby generator #2 (NW)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-18-06(G)	0.5 lb sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input
	OAC rule 3745-31-05(D) PTI 08-3403	0.79 TPY SO <sub>2</sub> , as a rolling, 12-month summation
		11.97 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.82 TPY particulates
		47.9 lbs/hour NO <sub>x</sub>
		10.32 lbs/hour and 2.58 TPY carbon monoxide (CO)
		4.7 lbs/hour and 1.20 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 47.9 lbs/hour NO<sub>x</sub>, 10.32 lbs/hour CO, and 4.7 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 38,500 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.
- 3.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall maintain monthly records of the total quantity of oil received in each shipment, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu) for all the shipments of oil during the calendar month.
4. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Director (appropriate Ohio EPA District Office or local air agency) in writing of any monthly composite sample of oil that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1. The notification shall include a copy of such record and shall be sent to the Director (appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

### V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

#### Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation -  
0.5 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

Compliance shall be based upon the record keeping and analysis requirements specified in Sections A.III.2 and 3 of this permit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

**1.d** Emission Limitation -  
0.79 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.e** Emission Limitation -  
11.97 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.f** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

**1.g** Emission Limitation -  
38,500 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.h** Emission Limitation -  
0.82 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

## V. Testing Requirements (continued)

- 1.i** Emission Limitation -  
47.9 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.j** Emission Limitation -  
10.32 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
2.58 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

- 1.l** Emission Limitation -  
4.7 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
1.20 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B006 - GEN (B006)  
**Activity Description:** 10.8 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
10.8 mmBtu/hour, diesel-fired standby generator #3 (NW)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-18-06(G)	0.5 lb sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input
	OAC rule 3745-31-05(D) PTI 08-3403	0.79 TPY SO <sub>2</sub> , as a rolling, 12-month summation
		11.97 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	0.82 TPY particulates
		47.9 lbs/hour NO <sub>x</sub>
		10.32 lbs/hour and 2.58 TPY carbon monoxide (CO)
		4.7 lbs/hour and 1.20 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 47.9 lbs/hour NO<sub>x</sub>, 10.32 lbs/hour CO, and 4.7 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 38,500 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.
- 3.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall maintain monthly records of the total quantity of oil received in each shipment, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu) for all the shipments of oil during the calendar month.
4. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Director (appropriate Ohio EPA District Office or local air agency) in writing of any monthly composite sample of oil that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1. The notification shall include a copy of such record and shall be sent to the Director (appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

### V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

#### Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation -  
0.5 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

Compliance shall be based upon the record keeping and analysis requirements specified in Sections A.III.2 and 3 of this permit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

**1.d** Emission Limitation -  
0.79 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.e** Emission Limitation -  
11.97 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.f** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

**1.g** Emission Limitation -  
38,500 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.h** Emission Limitation -  
0.82 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

## V. Testing Requirements (continued)

- 1.i** Emission Limitation -  
47.9 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.j** Emission Limitation -  
10.32 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
2.58 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

- 1.l** Emission Limitation -  
4.7 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
1.20 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B007 (B007)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

**A. State and Federally Enforceable Section**

**I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #1	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

**2. Additional Terms and Conditions**

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## **V. Testing Requirements (continued)**

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B008 (B008)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #2	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

**1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

**1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

**1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## V. Testing Requirements (continued)

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B009 (B009)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #3	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## **V. Testing Requirements (continued)**

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B010 (B010)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #4	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

**1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

**1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

**1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## V. Testing Requirements (continued)

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B011 (B011)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

**A. State and Federally Enforceable Section**

**I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #10	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

**2. Additional Terms and Conditions**

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## **V. Testing Requirements (continued)**

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B012 (B012)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #11	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## V. Testing Requirements (continued)

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B013 (B013)

**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #12	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

**1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

**1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

**1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

**1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## V. Testing Requirements (continued)

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B014 - GEN (B014)  
**Activity Description:** 3.0 MMBTU/HR STAND-BY GENERATOR

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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>
3 mmBtu/hour diesel-fired standby generator (steam plant backup)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(D) PTI 08-3573	0.65 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		9.9 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3573	0.67 TPY particulates
		0.87 lb/hour SO <sub>2</sub>
		13.23 lbs/hour NO <sub>x</sub>
		2.85 lbs/hour and 2.14 TPY carbon monoxide (CO)
		1.3 lbs/hour and 0.98 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 0.87 lb/hour SO<sub>2</sub>, 13.23 lbs/hour NO<sub>x</sub>, 2.85 lbs/hour CO, and 1.3 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 31,500 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation -  
0.65 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.d Emission Limitation -  
9.90 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

- 1.f** Emission Limitation -  
31,500 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.g** Emission Limitation -  
0.67 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

- 1.h** Emission Limitation -  
0.87 lb/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.29 lb SO<sub>2</sub>/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.i** Emission Limitation -  
13.23 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.j** Emission Limitation -  
2.85 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
2.14 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.l** Emission Limitation -  
1.30 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
0.98 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B014 - GEN (B014)  
**Activity Description:** 3.0 MMBTU/HR STAND-BY GENERATOR

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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>
3 mmBtu/hour diesel-fired standby generator (steam plant backup)	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(D) PTI 08-3573	0.65 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		9.9 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3573	0.67 TPY particulates
		0.87 lb/hour SO <sub>2</sub>
		13.23 lbs/hour NO <sub>x</sub>
		2.85 lbs/hour and 2.14 TPY carbon monoxide (CO)
		1.3 lbs/hour and 0.98 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 0.87 lb/hour SO<sub>2</sub>, 13.23 lbs/hour NO<sub>x</sub>, 2.85 lbs/hour CO, and 1.3 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 31,500 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.
2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.b Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation -  
0.65 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.d Emission Limitation -  
9.90 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

- 1.f** Emission Limitation -  
31,500 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

- 1.g** Emission Limitation -  
0.67 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

- 1.h** Emission Limitation -  
0.87 lb/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.29 lb SO<sub>2</sub>/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.i** Emission Limitation -  
13.23 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NO<sub>x</sub>/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.j** Emission Limitation -  
2.85 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
2.14 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.l** Emission Limitation -  
1.30 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
0.98 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** B015 (B015)  
**Activity Description:** 8.46 MMBTU/HR NATURAL GAS/OIL FIRED BOILER

**A. State and Federally Enforceable Section**

**I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #8	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

**2. Additional Terms and Conditions**

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## **V. Testing Requirements (continued)**

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B016 (B016)

**Activity Description:** 8.46 MMBUT/HR NATURAL GAS/OIL FIRED BOILER

#### A. State and Federally Enforceable Section

##### I. 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>
8.46 mmBtu/hour, natural gas/No. 2 fuel oil boiler #9	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu of actual heat input
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(D) PTI 08-3544	10.50 TPY sulfur dioxide (SO <sub>2</sub> ), as a rolling, 12-month summation
		4.60 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3544	0.75 TPY particulates
		4.26 lbs/hour SO <sub>2</sub>
		2.06 lbs/hour NO <sub>x</sub>
		0.68 lb/hour and 2.98 TPY carbon monoxide (CO)
		0.10 lb/hour and 0.39 TPY organic compounds (OC)
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

- 2.a The 4.26 lbs/hour SO<sub>2</sub>, 2.06 lbs/hour NO<sub>x</sub>, 0.68 lb/hour CO, and 0.10 lb/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 295,200 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
2. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.5%, by weight.
3. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The amount of fuel oil burned, in gallons.
  - b. The amount of natural gas burned, in mm cu. ft.
  - c. The rolling, 12-month summation of the monthly fuel oil usage rates, in gallons.
  - d. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 0.6 lb SO<sub>2</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 142S\* lbs SO<sub>2</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.i (a) + 1.d.i (b), and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 100 lbs NO<sub>x</sub>/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 20 lbs NO<sub>x</sub>/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.ii (a) + 1.d.ii (b), and then divide by 2000.
    - iii. for particulates:
      - (a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 1.9 lbs particulates (filterable)/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];
      - (b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 2 lbs particulates/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and
      - (c) add 1.d.iii (a) + 1.d.iii (b), and then divide by 2000.

### III. Monitoring and/or Record Keeping Requirements (continued)

iv. for CO:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 84 lbs CO/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 5 lbs CO/1000 gallons [from AP-42, Table 1.3-1 (revised 9/98)]; and

(c) add 1.d.iv (a) + 1.d.iv (b), and then divide by 2000.

v. for OC:

(a) multiply the total amount of natural gas burned (in mm cu.ft./month, from section 1.b) by the emission factor of 11 lbs OC/mm cu. ft [from AP-42, Table 1.4-2 (revised 7/98)];

(b) multiply the total amount of No. 2 oil burned (in gallons/month, from section 1.a) by the emission factor of 0.556 lb OC/1000 gallons [from AP-42, Table 1.3-3 (revised 9/98)]; and

(c) add 1.d.v (a) + 1.d.v (b), and then divide by 2000.

e. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

\* the sulfur content (in percent, by weight) of the No. 2 fuel oil (0.5%)

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 and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel oil usage restriction, the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>, and the fuel oil sulfur content (in percent, by weight) limitation. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. 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.

## V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation -  
0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

For the use of natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hour) by the AP-42, Table 1.4-2 ( revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

For the use of No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor for No. 2 fuel oil (2 lbs particulates/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hour).

If required, compliance shall be demonstrated in accordance with the methods in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

1.c Emission Limitation -  
10.50 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in sections A.III.1, 2, and 3 of this permit.

1.d Emission Limitation -  
4.6 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit.

1.e Emission Limitation -  
0.75 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly PE rates for the calendar year.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation -  
4.26 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 142S lbs SO<sub>2</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 6.

- 1.g** Emission Limitation -  
2.06 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NO<sub>x</sub>/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 20 lbs NO<sub>x</sub>/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 7.

- 1.h** Emission Limitation -  
0.68 lb/hour CO

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.i** Emission Limitation -  
2.98 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly CO rates for the calendar year.

## V. Testing Requirements (continued)

- 1.j** Emission Limitation -  
0.10 lb/hour OC

Applicable Compliance Method -

When burning natural gas, compliance may be determined by multiplying the AP-42, Table 1.4-2 (revised 7/98) emission factor of 11 lbs OC/mm cu. ft. by the maximum hourly fuel burning capacity (mm cu ft./hour) of the emissions unit.

When burning No. 2 fuel oil, compliance may be determined by multiplying the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.556 lb OC/1000 gallons of fuel oil by the maximum hourly fuel burning capacity (gallons/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.k** Emission Limitation -  
0.39 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements in section A.III.1 of this permit and shall be the summation of the 12 monthly OC rates for the calendar year.

- 1.l** Emission Limitation -  
295,200 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit

- 1.m** Emission Limitation -  
0.5% (by weight) sulfur content for the No. 2 fuel oil

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Sections A.III.2 and A.III.3 of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** B017 - GEN (B017)  
**Activity Description:** 15.7 MMBTU/HR STAND-BY GENERATOR

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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>
15.7 mmBtu/hour diesel-fired standby generator	OAC rule 3745-17-11(B)(5)(a)	0.25 lb particulates/mmBtu of actual heat input (see A.I.2.b)
	OAC rule 3745-17-11(B)(5)(a)	0.310 lb particulates/mmBtu of actual heat input (see A.I.2.c)
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-18-06(G)	0.5 lb sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input
	OAC rule 3745-31-05(D) PTI 08-3403	1.14 TPY SO <sub>2</sub> , as a rolling, 12-month summation
	OAC rule 3745-31-05(A)(3) PTI 08-3403	17.29 TPY nitrogen oxides (NO <sub>x</sub> ), as a rolling, 12-month summation
		1.22 TPY particulates
		69.15 lbs/hour NO <sub>x</sub>
		14.9 lbs/hour and 3.72 TPY carbon monoxide (CO)
		5.49 lbs/hour and 1.37 TPY organic compounds (OC)
	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a) and 3745-17-07(A).	

## **2. Additional Terms and Conditions**

- 2.a** The 69.15 lbs/hour NO<sub>x</sub>, 14.9 lbs/hour CO, and 5.49 lbs/hour OC allowable emission rates were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulates limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

## **II. Operational Restrictions**

- 1.** The maximum annual fuel usage for this emissions unit shall not exceed 56,000 gallons, based upon a rolling, 12-month summation of the monthly fuel usage rates.
- 2.** The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.
- 3.** The permittee shall burn only diesel fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The fuel usage, in gallons.
  - b. The rolling, 12-month summation of the monthly fuel usage rates, in gallons.
  - c. The SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emission rates, in tons, calculated as follows:
    - i. for SO<sub>2</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.i (a) by the emission factor of 0.29 lb SO<sub>2</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - ii. for NO<sub>x</sub>:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.ii (a) by the emission factor of 4.41 lb NO<sub>x</sub>/mmBtu [from AP-42, Table 3.3-1 (revised 10/96)], and then divide by 2000.
    - iii. for CO:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iii (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 CO/mmBtu, and then divide by 2000.
    - iv. for OC:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.iv (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu, and then divide by 2,000.
    - v. for particulates:
      - (a) multiply the fuel usage (gallons/month, from section 1.a above) by the heat content of the fuel employed (mmBtu/gallon); and
      - (b) multiply 1.c.v (a) by the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.31 lb particulates/mmBtu, and then divide by 2,000.
  - d. The rolling, 12-month summation of the SO<sub>2</sub> and NO<sub>x</sub> emission rates, in tons.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. 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. At the end of each calendar month, the representative samples of oil from all the shipments of oil which were received during that calendar month shall each be combined (in proportion to the amount of oil received in each shipment) into one composite sample.

For each monthly composite sample, 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, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall maintain monthly records of the total quantity of oil received in each shipment, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu) for all the shipments of oil during the calendar month.
4. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage restriction and the rolling, 12-month emission limitations for SO<sub>2</sub> and NO<sub>x</sub>. These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).
2. The permittee shall submit annual reports that specify the total SO<sub>2</sub>, NO<sub>x</sub>, particulates, CO, and OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Director (appropriate Ohio EPA District Office or local air agency) in writing of any monthly composite sample of oil that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1. The notification shall include a copy of such record and shall be sent to the Director (appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

### V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation -  
0.25 lb particulates/mmBtu of actual heat input

#### Applicable Compliance Method -

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:  
0.310 lb particulates/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.31 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation -  
0.5 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

Compliance shall be based upon the record keeping and analysis requirements specified in Sections A.III.2 and 3 of this permit.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

**1.d** Emission Limitation -  
1.14TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.e** Emission Limitation -  
17.29 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.f** Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1).

**1.g** Emission Limitation -  
56,000 gallons/year fuel usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

**1.h** Emission Limitation -  
1.22 TPY particulates

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly particulates emission rates for the calendar year.

## V. Testing Requirements (continued)

- 1.i** Emission Limitation -  
69.15 lbs/hour NOx

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 4.41 lbs NOx/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.j** Emission Limitation -  
14.9 lbs/hour CO

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.95 lb CO/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 10.

- 1.k** Emission Limitation -  
3.72 TPY CO

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly CO emission rates for the calendar year.

- 1.l** Emission Limitation -  
5.49 lbs/hour OC

Applicable Compliance Method -

Compliance may be determined by multiplying the AP-42, Table 3.3-1 (revised 10/96) emission factor of 0.43 lb OC/mmBtu by the maximum hourly heat input of the generator (10.8 mmBtu/hour).

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 25.

- 1.m** Emission Limitation -  
1.37 TPY OC

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit and shall be the summation of the 12 monthly OC emission rates for the calendar year.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. 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>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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