



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

03/23/01

CERTIFIED MAIL

**RE: Preliminary Proposed Title V
Chapter 3745-77 permit**

14-31-07-0849
University of Cincinnati
Barbara F. Keyes
P.O. Box 210218
Cincinnati, OH 45221-0218

Dear Barbara F. Keyes:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 01/31/01. The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. **Please submit, in writing, any comments you may have within fourteen (14) days from your receipt of this letter to:**

Ohio Environmental Protection Agency
Jim Orlemann, Manager, Engineering Section
Division of Air Pollution Control
P.O.Box 1049
Columbus, OH 43216-1049

and

Hamilton County Dept. of Environmental Services
250 William Howard Taft Rd
Cincinnati, OH 45219-2660
(513) 946-7777

Also, if you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within fourteen (14) days of your receipt of this letter, we will forward the proposed permit to USEPA for approval. All comments received will be carefully considered before proceeding to the proposed permit.

Very truly yours,

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

cc: Hamilton County Dept. of Environmental Services
Becky Castle, DAPC PMU



Ohio EPA

State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Date: 03/23/01

Effective Date: **To be entered upon final issuance**

Expiration Date: **To be entered upon final issuance**

This document constitutes issuance to:

University of Cincinnati
3001 Vine Street
Cincinnati, OH 45219-0390

of a Title V permit for Facility ID: 14-31-07-0849

Emissions Unit ID (Company ID)/

Emissions Unit Activity Description:

B005 (Central Plant Boiler #2)

#2 Oil Fired, 114.8 MMBTU, West Campus Utility Plant

B019 (Boiler, Central Plant 1)

Gas/#2 Oil Fired, 200 MMBTU/hr

B020 (Boiler, Central Plant 2)

Gas/#2 Oil Fired, 200 MMBTU/hr

B103 (Boiler #4)

Coal Fired 68 MMBTU Spreader Boiler w/ESP

B104 (Boiler #5)

Riley Gas #2 Oil Fired 104 MMBTU Boiler

B105 (Boiler #2)

Erie City Gas #2 Oil Fired 122 MMBTU Boiler

B108 (Boiler #3)

Coal Fired 135.6 MMBTU Spreader Boiler w/ fabric filter

P001 (12MMBTU Gas Fired Stationary Engine)

12 MMBTU/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.

P002 (12MMBTU Gas Fired Stationary Engine)

12 MMBTU/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.

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

Hamilton County Dept. of Environmental Services
250 William Howard Taft Rd
Cincinnati, OH 45219-2660
(513) 946-7777

OHIO ENVIRONMENTAL PROTECTION AGENCY

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 Enforceable Section

None

B. State Only Enforceable Section

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

F001	Coal Handling
N001	120 lbs/hr Pathological Incinerator
N005	200 lbs/hr Pathological Incinerator
P901	Ash Handling
T001	30000-gallon UST, #2 Fuel Oil
T002	30000-gallon UST, #2 Fuel Oil
T003	30000-gallon UST, #2 Fuel Oil
T004	30000-gallon UST, #2 Fuel Oil
T005	30000-gallon UST, #2 Fuel Oil
T006	30000-gallon UST, #2 Fuel Oil
T007	30000-gallon UST, #2 Fuel Oil
T008	30000-gallon UST, #2 Fuel Oil
T101	15000-gallon UST, #2 Fuel Oil
T102	15000-gallon UST, #2 Fuel Oil
T103	30000-gallon UST, #2 Fuel Oil
T104	30000-gallon UST, #2 Fuel Oil
T105	30000-gallon UST, #2 Fuel Oil
T106	30000-gallon UST, #2 Fuel Oil
T107	30000-gallon UST, #2 Fuel Oil
T108	30000-gallon UST, #2 Fuel Oil
T109	30000-gallon UST, #2 Fuel Oil
T110	30000-gallon UST, #2 Fuel Oil

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: Central Plant Boiler #2 (B005)

Activity Description: #2Oil Fired, 114.8 MMBTU, West Campus Utility Plant

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>
114.8 MMBtu/Hr No. 2 Oil Fired Boiler	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(B)(1)	0.020 LB PE/MMBtu of actual heat input
	OAC rule 3745-18-37(K)(2)	0.3 LB SO ₂ /MMBtu of actual heat input

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only number two fuel oil in this emissions unit.
- The quality of the oil burned in this emissions unit shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.3 pound sulfur dioxide / MMBtu of actual heat input on an "as received" basis.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, 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.

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

3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(G)(2)).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent), the density (lbs/gallon) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average heat content (Btu/gallon) of the oil received during each calendar month; and
 - c. the weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(G)(2)).

*In proportion to the quantity of oil received in each shipment during each calendar month. These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover all the oil shipments received during each previous calendar quarter.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(1).
2. Compliance with the particulate matter emission limit in section A.I.1 shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 2 lbs PE (filterable) / 1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98) for No. 2 oil fired combustion. The actual emission of particulate matter, expressed in lbs PE / MMBtu, is the AP-42 emission factor times 1000 divided by the heat content.

If testing is required to demonstrate compliance with the allowable PE emission limit, testing shall be conducted using the following method:

Method 5 of 40 CFR Part 60, Appendix A, or other USEPA-approved variants.

3. Compliance with the SO₂ emission limit in section A.I.1 shall be demonstrated by the record keeping requirements in section A.III. 2 and 3 of this permit.

If testing is required to demonstrate compliance with the allowable SO₂ emission limit, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A, or other USEPA-approved variants.

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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114.8 MMBtu / Hr No. 2 Oil Fired
Boiler

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: Boiler, Central Plant 1 (B019)
Activity Description: Gas/#2 Oil Fired, 200 MMBTU/hr

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>
200 MMBtu/Hr Natural Gas/No. 2 Oil Fired Boiler	OAC rule 3745-31-05 (PTI 14-2107)	See section A.1.2.a and A.2.b below. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Db.
	40 CFR Part 60, Subpart Db	The .20 LB NOX/MMBtu emission limitation specified in 40 CFR Part 60, Subpart Db is equal to the emission limitation established pursuant to OAC rule 3745-31-05. Visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity.
	OAC rule 3745-17-07(A)(1)	The visible emission limitations specified in this rule are less stringent than those established in 40 CFR Part 60, Subpart Db.
	OAC rule 3745-17-10(B)(1)	The LB/MMBtu PE limitation specified by this rule is equivalent to or less stringent than the LB/MMBtu limitations established pursuant to OAC rule 3745-31-05 .
	OAC rule 3745-18-37(K)(3)	The LB/MMBtu SO2 limitation specified by this rule is less stringent than the LB/MMBtu limitation established pursuant to OAC rule 3745-31-05 for number 2 oil.

2. Additional Terms and Conditions

2.a When burning only natural gas:

0.005 LB PE/MMBtu of actual heat input
0.6 LB of SO₂/1,000,000 CU FT of natural gas burned
0.03 LB CO/MMBtu of actual heat input
0.001 LB VOC/MMBtu of actual heat input
0.20 LB NOX/MMBtu of actual heat input

When burning #2 fuel oil:

0.020 LB PE/MMBtu of actual heat input
0.3 LB SO₂/MMBtu of actual heat input
0.03 LB CO/MMBtu of actual heat input
0.001 LB VOC/MMBtu of actual heat input
0.20 LB NOX/MMBtu of actual heat input

2.b The total combined emissions from emissions units B019 and B020 shall not exceed the following, based on a rolling, twelve-month summation:

PE = 5.08 TPY
SO₂ = 21.06 TPY
CO = 24.5 TPY
VOC = 0.82 TPY
NOX = 163.3 TPY

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
2. The quality of the oil burned in this emissions unit shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.3 pounds of sulfur dioxide/MMBtu of actual heat input on an "as received" basis, and a maximum sulfur content of 0.39 percent by weight.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

3. The total combined fuel usage in emissions units B019 and B020 shall not exceed 983,802 gallons of #2 fuel oil per year and 1,491,333,333 cubic feet of natural gas per year, based on rolling, twelve-month summations.
4. The total combined heat input for emissions units B019 and B020 shall not exceed 1,633,100 MMBtu/year, based on a rolling twelve-month summation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
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. 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 Hamilton County Department of Environmental Services.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate in lb/MMBtu (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(G)(2)).

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

4. The permittee collect and record the following information for emissions units B019 and B020 on a monthly basis:
 - a. the total combined monthly amount of natural gas burned (in cubic feet);
 - b. the total combined rolling, 12-month summation of the natural gas burned (in cubic feet);
 - c. the total combined monthly amount of No. 2 fuel oil burned, in gallons;
 - d. the total combined rolling, 12-month summation of No. 2 fuel oil burned, in gallons;
 - e. the total combined monthly heat input from the combustion of natural gas and No.2 fuel oil, in MMBtu ((average heat content of No. 2 fuel oil based upon the results of the analyses of the fuel burned that month X monthly gallons of fuel oil burned) + (1000 Btu/cubic foot X monthly cubic feet of natural gas burned))/1,000,000); and
 - f. the total combined heat input, in MMBtu/yr, based on a rolling, twelve-month summation.

5. The permittee shall operate and maintain the existing equipment to continuously monitor and record the NOx emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

6. A statement of certification of the existing continuous NOx monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Hamilton County Department of Environmental Services upon request.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, emissions of NOx in units of the applicable standard in the appropriate averaging period (i.e., LB/MMBtu, hourly, daily, and 30-day rolling), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days of the effective date of this permit or modification to the system, the permittee shall install, operate and maintain a continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit, pursuant to the requirements of 40 CFR Part 60.48b. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

8. Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

Within 90 days of the effective date of this permit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9 (mandatory).

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

9. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system that is designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and be available for inspection during regular office hours.
10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and be available for inspection during regular office hours.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports which identify each exceedance of the following:
 - a. the rolling, 12-month natural gas usage limitation (combined total for B019 and B020);
 - b. the rolling, 12-month No. 2 fuel oil usage limitation (combined total for B019 and B020);
 - c. the rolling, 12-month heat input limitation (combined total for B019 and B020);
 - d. the SO₂ emission limitation in LB/MMBtu (based upon each shipment of oil); and
 - e. the sulfur content limitation in percent by weight (based upon each shipment of oil).
3. The permittee shall also submit annual reports which specify the total natural gas usage, the total No. 2 fuel oil usage, and the total heat input of fuels used, in MMBtu per year. These reports shall be submitted by January 31 of each year.
4. Pursuant to OAC rules 3745-15-04 and 3745-35-02, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to Hamilton County Department of Environmental Services documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Hamilton County Department of Environmental Services documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

IV. Reporting Requirements (continued)

5. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in 40 CFR Part 60, Subpart Db, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the opacity limitations of 40 CFR 60, Subpart Db, shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. Compliance with the LB/MMBtu PE limit for natural gas combustion in section A.I.2.a shall be demonstrated by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.90 lbs filterable PE/MM cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the LB/MMBtu PE limit for No.2 fuel oil combustion in sections A.I.2.a shall be demonstrated by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 2.0 lbs filterable PE/1000 gallons, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the total combined annual emission limitation for PE in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the lb/MMBtu limitations is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu PE limits, testing shall be conducted using the following method:

Method 5 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

3. Compliance with the LB/MMBtu SO₂ emission limit for natural gas combustion in section A.I.2.a shall be demonstrated by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 0.6 lbs SO₂/MM cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the LB/MMBtu SO₂ emission limit for No.2 fuel oil combustion in section A.I.2.a shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation listed in A.II.2.

Compliance with the total combined annual emission limitation for SO₂ in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitations is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable SO₂ emission limits, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

4. Compliance with the LB/MMBtu NO_x emissions limits in section A.I.2.a shall be demonstrated by the continuous monitoring and record keeping requirements in section A.III of this permit.

Compliance with the total combined annual emission limitation for NO_x in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu emission limit, testing shall be conducted using the following method:

Method 7 of 40 CFR 60, Appendix A, or USEPA-approved variants.

5. Compliance with the LB/MMBtu VOC emission limit for natural gas combustion in sections A.I.2.a shall be demonstrated by the record keeping requirements in section A.III of this permit and an emission factor of 5.5 lbs VOC /1,000,000 standard cubic feet of natural gas burned as found in AP-42, Section 1.4, Natural Gas Combustion (dated 3/98). The actual emission of VOC, expressed in LB VOC/MMBtu, is the AP-42 emission factor times the amount of fuel used, in million scf, divided by the heat content of the fuel in Btu/scf.

Compliance with the LB/MMBtu VOC emission limit for No. 2 fuel oil combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 0.2 lb VOC/1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98) for No. 2 oil fired combustion. The actual emission of VOC, expressed in LB VOC/MMBtu, is the AP-42 emission factor times 1000 divided by the heat content.

Compliance with the total combined annual emission limitation for VOC in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu VOC emission limits, testing shall be conducted using the following method:

Method 25 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

6. Compliance with the LB/MMBtu CO emission limit for natural gas combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III of this permit and an emission factor of 84 lbs CO/1,000,000 standard cubic feet of natural gas burned as found in AP-42, Section 1.4, Natural Gas Combustion (dated 3/98). The actual emission of CO, expressed in LB CO/MMBtu, is the AP-42 emission factor times the amount of fuel used, in million scf, divided by the heat content of the fuel in Btu/scf.

Compliance with the LB/MMBtu CO emission limit for No. 2 fuel oil combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 5 lbs CO/1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98) for No. 2 oil fired combustion. The actual emission of CO, expressed in LB CO/MMBTU, is the AP-42 emission factor times 1000 divided by the heat content.

Compliance with the total combined annual emission limitation for CO in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu CO emission limits, testing shall be conducted using the following method:

Method 10 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

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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200 MMBtu / Hr Natural Gas / No. 2
Oil Fired Boiler

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: Boiler, Central Plant 2 (B020)
Activity Description: Gas/#2 Oil Fired, 200 MMBTU/hr

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>
200 MMBtu/Hr Natural Gas/No. 2 Oil Fired Boiler	OAC rule 3745-31-05 (PTI 14-2107)	See section A.1.2.a and A.2.b below. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Db.
	40 CFR Part 60, Subpart Db	The .20 LB NOX/MMBtu emission limitation specified in 40 CFR Part 60, Subpart Db is equal to the emission limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity. The visible emission limitations specified in this rule are less stringent than those established in 40 CFR Part 60, Subpart Db.
	OAC rule 3745-17-10(B)(1)	The LB/MMBtu PE limitation specified by this rule is equivalent to or less stringent than the LB/MMBtu limitations established pursuant to OAC rule 3745-31-05 .
	OAC rule 3745-18-37(K)(3)	The LB/MMBtu SO2 limitation limitation specified by this rule is less stringent than the LB/MMBtu limitation established pursuant to OAC rule 3745-31-05 for number 2 oil.

2. Additional Terms and Conditions

2.a When burning only natural gas:

0.005 LB PE/MMBtu of actual heat input
0.6 LB of SO₂/1,000,000 CU FT of natural gas burned
0.03 LB CO/MMBtu of actual heat input
0.001 LB VOC/MMBtu of actual heat input
0.20 LB NOX/MMBtu of actual heat input

When burning #2 fuel oil:

0.020 LB PE/MMBtu of actual heat input
0.3 LB SO₂/MMBtu of actual heat input
0.03 LB CO/MMBtu of actual heat input
0.001 LB VOC/MMBtu of actual heat input
0.20 LB NOX/MMBtu of actual heat input

2.b The total combined emissions from emissions units B019 and B020 shall not exceed the following, based on a rolling, twelve-month summation:

PE = 5.08 TPY
SO₂ = 21.06 TPY
CO = 24.5 TPY
VOC = 0.82 TPY
NOX = 163.3 TPY

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
2. The quality of the oil burned in this emissions unit shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.3 pounds of sulfur dioxide/MMBtu of actual heat input on an "as received" basis, and a maximum sulfur content of 0.39 percent by weight.

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

3. The total combined fuel usage in emissions units B019 and B020 shall not exceed 983,802 gallons of #2 fuel oil per year and 1,491,333,333 cubic feet of natural gas per year, based on rolling, twelve-month summations.
4. The total combined heat input for emissions units B019 and B020 shall not exceed 1,633,100 MMBtu/year, based on a rolling twelve-month summation.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
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. 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 Hamilton County Department of Environmental Services.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate in lb/MMBtu (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(G)(2)).

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

4. The permittee collect and record the following information for emissions units B019 and B020 on a monthly basis:
 - a. the total combined monthly amount of natural gas burned (in cubic feet);
 - b. the total combined rolling, 12-month summation of the natural gas burned (in cubic feet);
 - c. the total combined monthly amount of No. 2 fuel oil burned, in gallons;
 - d. the total combined rolling, 12-month summation of No. 2 fuel oil burned, in gallons;
 - e. the total combined monthly heat input from the combustion of natural gas and No.2 fuel oil, in MMBtu ((average heat content of No. 2 fuel oil based upon the results of the analyses of the fuel burned that month X monthly gallons of fuel oil burned) + (1000 Btu/cubic foot X monthly cubic feet of natural gas burned))/1,000,000); and
 - f. the total combined heat input, in MMBtu/yr, based on a rolling, twelve-month summation.

5. The permittee shall operate and maintain the existing equipment to continuously monitor and record the NOx emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

6. A statement of certification of the existing continuous NOx monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Hamilton County Department of Environmental Services upon request.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, emissions of NOx in units of the applicable standard in the appropriate averaging period (i.e., LB/MMBtu, hourly, daily, and 30-day rolling), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days of the effective date of this permit or modification to the system, the permittee shall install, operate and maintain a continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit, pursuant to the requirements of 40 CFR Part 60.48b. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute basis, daily zero-span calibration checks, and manual calibration adjustments.

8. Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

Within 90 days of the effective date of this permit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9 (mandatory).

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

9. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NOx monitoring system that is designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and be available for inspection during regular office hours.
10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and be available for inspection during regular office hours.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports which identify each exceedance of the following:
 - a. the rolling, 12-month natural gas usage limitation (combined total for B019 and B020);
 - b. the rolling, 12-month No. 2 fuel oil usage limitation (combined total for B019 and B020);
 - c. the rolling, 12-month heat input limitation (combined total for B019 and B020);
 - d. the SO₂ emission limitation in LB/MMBtu (based upon each shipment of oil); and
 - e. the sulfur content limitation in percent by weight (based upon each shipment of oil).
3. The permittee shall also submit annual reports which specify the total natural gas usage, the total No. 2 fuel oil usage, and the total heat input of fuels used, in MMBtu per year. These reports shall be submitted by January 31 of each year.
4. Pursuant to OAC rules 3745-15-04 and 3745-35-02, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to Hamilton County Department of Environmental Services documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Hamilton County Department of Environmental Services documenting any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

IV. Reporting Requirements (continued)

5. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in 40 CFR Part 60, Subpart Db, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the opacity limitations of 40 CFR 60, Subpart Db, shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. Compliance with the LB/MMBtu PE limit for natural gas combustion in section A.I.2.a shall be demonstrated by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.90 lbs filterable PE/MM cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the LB/MMBtu PE limit for No.2 fuel oil combustion in sections A.I.2.a shall be demonstrated by multiplying the maximum fuel oil capacity of the emissions unit (gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 2.0 lbs filterable PE/1000 gallons, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the total combined annual emission limitation for PE in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the lb/MMBtu limitations is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu PE limits, testing shall be conducted using the following method:

Method 5 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

3. Compliance with the LB/MMBtu SO₂ emission limit for natural gas combustion in section A.I.2.a shall be demonstrated by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 0.6 lbs SO₂/MM cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

Compliance with the LB/MMBtu SO₂ emission limit for No.2 fuel oil combustion in section A.I.2.a shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation listed in A.II.2.

Compliance with the total combined annual emission limitation for SO₂ in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the lb/MMBtu limitations is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable SO₂ emission limits, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

4. Compliance with the LB/MMBtu NO_x emissions limits in section A.I.2.a shall be demonstrated by the continuous monitoring and record keeping requirements in section A.III of this permit.

Compliance with the total combined annual emission limitation for NO_x in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu emission limit, testing shall be conducted using the following method:

Method 7 of 40 CFR 60, Appendix A, or USEPA-approved variants.

5. Compliance with the LB/MMBtu VOC emission limit for natural gas combustion in sections A.I.2.a shall be demonstrated by the record keeping requirements in section A.III of this permit and an emission factor of 5.5 lbs VOC /1,000,000 standard cubic feet of natural gas burned as found in AP-42, Section 1.4, Natural Gas Combustion (dated 3/98). The actual emission of VOC, expressed in LB VOC/MMBtu, is the AP-42 emission factor times the amount of fuel used, in million scf, divided by the heat content of the fuel in Btu/scf.

Compliance with the LB/MMBtu VOC emission limit for No. 2 fuel oil combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 0.2 lb VOC/1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98) for No. 2 oil fired combustion. The actual emission of VOC, expressed in LB VOC/MMBtu, is the AP-42 emission factor times 1000 divided by the heat content.

Compliance with the total combined annual emission limitation for VOC in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu VOC emission limits, testing shall be conducted using the following method:

Method 25 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

6. Compliance with the LB/MMBtu CO emission limit for natural gas combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III of this permit and an emission factor of 84 lbs CO/1,000,000 standard cubic feet of natural gas burned as found in AP-42, Section 1.4, Natural Gas Combustion (dated 3/98). The actual emission of CO, expressed in LB CO/MMBtu, is the AP-42 emission factor times the amount of fuel used, in million scf, divided by the heat content of the fuel in Btu/scf.

Compliance with the LB/MMBtu CO emission limit for No. 2 fuel oil combustion in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 5 lbs CO/1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98) for No. 2 oil fired combustion. The actual emission of CO, expressed in LB CO/MMBtu, is the AP-42 emission factor times 1000 divided by the heat content.

Compliance with the total combined annual emission limitation for CO in A.I.2.b for emissions units B019 and B020 shall be assumed as long as compliance with the LB/MMBtu limitation is maintained, the fuel usages listed in section A.II.3 are not exceeded, and the combined heat input listed in section A.II.4 is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/MMBtu CO emission limits, testing shall be conducted using the following method:

Method 10 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

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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200 MMBtu / Hr Natural Gas / No. 2
Oil Fired Boiler

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: Boiler #4 (B103)

Activity Description: Coal Fired 68 MMBTU Spreader Boiler w/ESP

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>
68 MMBtu/Hr Coal Fired Spreader Stoker Boiler w/ ESP	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
This emissions unit was formerly identified as B003 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B103 in accordance with Engineering Guide 58.	OAC rule 3745-17-10(C)(1)	0.22 LB PE/MMBtu of actual heat input.
	OAC rule 3745-18-37(H)(1)	1.45 LBS SO ₂ / MMBtu of actual heat input.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The sulfur content and heat content of the coal burned in this emissions unit shall be sufficient to comply with the allowable sulfur dioxide emission limitation of 1.45 LBS SO₂/MMBtu of actual heat input.
- The permittee shall operate the ESP during any operation of this emissions unit except, the ESP may not be operated during periods of startup until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.
- The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect weekly, as-fired samples of the coal burned in this emissions unit. Each sample shall be collected from the feed conveyor. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

As provided in OAC rule 3745-18-04(D)(8)(d)(v), the permittee may obtain one representative coal sample per week from B103 for analysis in lieu of the weekly coal sampling specified above. The coal sample shall consist of one sample increment per boiler and each increment shall weigh a minimum of five pounds each.

Each weekly sample of coal shall be analyzed for sulfur content (weight percent) and heat content/gross calorific value (Btu/pound) in accordance with Method 19 of 40 CFR 60, Appendix A.

For each analyzed sample of coal, the representative sulfur dioxide emission rate shall be calculated using the following formula from OAC rule 3745-18-04(G)(1):

$$ER = (1 \times 10^6) \times S \times 1.95 / H$$

where:

ER = the emission rate in pounds of sulfur dioxide per MMBtu;

H = the heat content of the solid fuel in Btu per pound; and

S = the decimal fraction of sulfur in the solid fuel.

The permittee shall maintain weekly records of the total quantity of coal burned, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate in lbs/MMBtu.

2. Monitoring of the air pollution control equipment and the boiler shall be performed in accordance with an operation and maintenance plan that is consistent with the manufacturer's recommendations. Records of inspection and maintenance activities for the air pollution control equipment and boiler shall be maintained in accordance with the written operation and maintenance plan for the boiler and control equipment.
3. The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:
 - a. the secondary voltage, in kilovolts (kV), and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
 - b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and
 - c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).
4. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
 - a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in degrees Fahrenheit.

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

5. The permittee shall record the following information for each day:
 - a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
 - b. the duration of the downtime for the monitoring equipment specified in section A.III.5 above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

IV. Reporting Requirements

1. Quarterly reports shall be submitted concerning the quality and quantity of coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar week during the calendar quarter:
 - a. the total quantity of coal burned (tons);
 - b. the average sulfur content (percent) of the coal burned;
 - c. the average heat content (Btu/pound) of the coal burned; and
 - d. the sulfur dioxide emissions rate (pounds sulfur dioxide/MMBtu actual heat input) from the coal burned (this calculation shall be performed as specified in rule OAC rule 3745-18-04).

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarters.

2. The permittee shall submit deviation (excursion) reports which identify all periods of time during startup and shutdown of the emissions unit when the ESP was not in operation and the temperature of the boiler exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i).
3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in section A.II.3 of this permit.
4. The permittee shall submit deviation (excursion) reports which identify the sections of the ESP that were out of service along with the time period involved.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 16 months after issuance of this permit and within 16 months prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the particulate and sulfur dioxide emission limitations in section A.I.1.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 5 of 40 CFR Part 60, Appendix A for particulate emissions, and
Method 6 of 40 CFR Part 60, Appendix A for sulfur dioxide.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity. Also, the testing provisions of OAC rule 3745-17-03(B)(9) and OAC rules 3745-18-04(D)(7) and (E)(5) shall be met.

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

3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emission unit and/or the performance of the control equipment.
A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
4. Compliance with the allowable particulate emission rate shall be determined by the stack testing requirements in section A.V.2.
5. Compliance with the allowable sulfur dioxide emission rate shall be determined by the monitoring and record keeping requirements in sections A.III.1 and the stack testing requirements in section A.V.2.

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>
68 MMBtu/Hr Coal Fired Spreader Stoker Boiler w/ESP		

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: Boiler #5 (B104)
Activity Description: Riley Gas #2 Oil Fired 104 MMBTU Boiler

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>
104 MMBtu/Hr Natural Gas/No. 2 Oil Fired Boiler	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
This emissions unit was formerly identified as B004 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B104 in accordance with Engineering Guide 58.	OAC rule 3745-17-10(B)(1)	.020 LB PE/MMBtu of actual heat input
	OAC rule 3745-18-37(H)(2)	0.24 LB SO ₂ /MMBtu of actual heat input

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
- The quality of the oil burned in this emissions unit shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.24 pound sulfur dioxide/MMBtu actual heat input on an "as received" basis:

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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. 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 a Hamilton County Department of Environmental Services.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate (the SO₂ emission rate shall be calculated as specified in OAC 3745-18-04(G)(2)).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a semiannual basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average heat content (Btu/gallon) of the oil received during each calendar month; and,
 - c. the weighted* average SO₂ emission rate (pound/MMBtu of actual heat input) of the oil received during each calendar month.

* In proportion to the quantity of oil received in each shipment during each calendar month. These semiannual reports shall be submitted by February 15 and August 15 of each year and shall cover the oil shipments received during the previous two calendar quarters.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. For the combustion of No. 2 oil, compliance with the LB/MMBtu PE limit in section A.I.1 shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 2 lbs PE (filterable) / 1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98). The actual emission of particulate matter, expressed in LB PE / MMBtu, is the AP-42 emission factor times 1000 and divided by the heat content of the oil.

If testing is required to demonstrate compliance with the allowable PE emission limit for either natural gas or oil, testing shall be conducted using the following method:

Method 5 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

- 3.** Compliance with the lb/MMBtu SO₂ emission limit in section A.I.1 shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all of the shipments of oil received during the calendar month.

If testing is required to demonstrate compliance with the allowable SO₂ emission limit, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

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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104 MMBtu / Hr No. 2 Oil Fired
Boiler

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: Boiler #2 (B105)
Activity Description: Erie City Gas #2 Oil Fired 122 MMBTU Boiler

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>
122 MMBtu/Hr Natural Gas/No. 2 Oil Fired Boiler This emissions unit was formerly identified as B005 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B105 in accordance with Engineering Guide 58.	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(B)(1)	.020 LB PE/MMBtu of actual heat input
	OAC rule 3745-18-37(H)(2)	0.24 LB SO ₂ /MMBtu of actual heat input

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
- The quality of the oil burned in this emissions unit shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.24 pound sulfur dioxide/MMBtu actual heat input on an "as received" basis:

Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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. 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 a Hamilton County Department of Environmental Services.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate (the SO₂ emission rate shall be calculated as specified in OAC 3745-18-04(G)(2)).

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit, on a semiannual basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average heat content (Btu / gallon) of the oil received during each calendar month;
 - c. the weighted* average SO₂ emission rate (pound/MMBtu of actual heat input) of the oil received during each calendar month.

* In proportion to the quantity of oil received in each shipment during each calendar month. These semiannual reports shall be submitted by February 15 and August 15 of each year and shall cover the oil shipments received during the previous two calendar quarters.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. For the combustion of No. 2 oil, compliance with the LB/MMBtu PE limit in section A.I.1 shall be demonstrated by the record keeping requirements in section A.III and the emission factor of 2 lbs PE (filterable) / 1000 gallons fuel burned, as found in AP-42, Section 1.3, Fuel Oil Combustion, (dated 09/98). The actual emission of particulate matter, expressed in LB / MMBtu, is the AP-42 emission factor times 1000 and divided by the heat content of the oil.

If testing is required to demonstrate compliance with the allowable PE emission limit for either natural gas or oil, testing shall be conducted using the following method:

Method 5 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

V. Testing Requirements (continued)

- 3.** Compliance with the lb/MMBtu SO₂ emission limit in section A.I.1 shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon a volume-weighted average of the calculated sulfur dioxide emission rates for all of the shipments of oil received during the calendar month.

If testing is required to demonstrate compliance with the allowable SO₂ emission limit, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

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>
104 MMBtu / Hr No. 2 Oil Fired Boiler		

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: Boiler #3 (B108)

Activity Description: Coal Fired 135.6 MMBTU Spreader Boiler w/ fabric filter

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>
135.6 MMBtu/Hr Coal Fired Spreader Stoker Boiler w/ Fabric Filter	OAC rule 3745-31-05 (PTI 14-0485)	0.05 LB PE/MMBtu of actual heat input
This emissions unit was formerly identified as B008 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B108 in accordance with Engineering Guide 58.		0.70 LB NOx/MMBtu of actual heat input
		1.60 LBS SO2/MMBtu of actual heat input
		see section A.I.2.a. below
	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	Less stringent than the PE limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-18-37(H)(1)	1.45 LBS SO2/MMBtu of actual heat input.

2. Additional Terms and Conditions

- The following emissions rates shall not be exceeded on an annual basis:

PE = 27.0 tons per year
 SO2 = 864.2 tons per year
 NOx = 378.1 tons per year
 CO = 104.7 tons per year

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. This facility shall operate and maintain an oxygen analyzer to automatically regulate excess air to the boiler.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect weekly, as-fired samples of the coal burned in this emissions unit. Each sample shall be collected from the feed conveyor. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

As provided in OAC rule 3745-18-04(D)(8)(d)(v), the permittee may obtain one representative coal sample per week from B103 and B108 for analysis in lieu of the weekly coal sampling specified above. The coal sample shall consist of one sample increment per boiler and each increment shall weigh a minimum of five pounds each.

Each weekly sample of coal shall be analyzed for sulfur content (weight percent) and heat content/gross calorific value (Btu/pound) in accordance with Method 19 of 40 CFR 60, Appendix A.

For each analyzed sample of coal, the representative sulfur dioxide emission rate shall be calculated using the following formula from OAC rule 3745-18-04(G)(1):

$$ER = (1 \times 10^6) \times S \times 1.95 / H$$

where:

ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the solid fuel in Btu per pound; and

S = the decimal fraction of sulfur in the solid fuel.

The permittee shall maintain weekly records of the total quantity of coal burned, the results of the analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate in lbs/MMBtu.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on continuous basis.
3. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
4. A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Hamilton County Department of Environmental Services upon request.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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

5. The permittee shall maintain monthly records of the following information:
 - a. the year-to-date emission rate, in tons, for PE;
 - b. the year-to-date emission rate, in tons, for SO₂;
 - c. the year-to-date emission rate, in tons, for NO_x; and
 - d. the year-to-date emission rate, in tons, for CO.
6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

IV. Reporting Requirements

1. Quarterly reports shall be submitted concerning the quality and quantity of coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar week during the calendar quarter:
 - a. the total quantity of coal burned (tons);
 - b. the average sulfur content (percent) of the coal burned;
 - c. the average heat content (Btu/pound) of the coal burned; and
 - d. the sulfur dioxide emissions rate (pounds sulfur dioxide/MMBtu actual heat input) from the coal burned (this calculation shall be performed as specified in rule OAC rule 3745-18-04).

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarters.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

IV. Reporting Requirements (continued)

3. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Hamilton County Department of Environmental Services documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Hamilton County Department of Environmental Services documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit annual reports which specify the annual emission rates, in tons, of PE, SO₂, NO_x, and CO. The reports shall be submitted by January 31 of each year and shall cover the previous year's operation.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 16 months after issuance of this permit and within 16 months prior to the expiration of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the particulate and sulfur dioxide emission limitations in section A.I.1.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 5 of 40 CFR Part 60, Appendix A for particulate matter, and
Method 6 of 40 CFR Part 60, Appendix A for sulfur dioxide.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity. Also, the testing provisions of OAC rule 3745-17-03(B)(9) and OAC rules 3745-18-04(D)(7) and (E)(5) shall be met.

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

V. Testing Requirements (continued)

3. Compliance with the SO₂ emission limit in section A.I.1 shall be demonstrated by the record keeping requirements in section A.III of this permit.

If testing is required to demonstrate compliance with the allowable emission limit of 1.45 LBS SO₂ / MMBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR Part 60, Appendix A.

4. Compliance with the LB/MMBtu PE limit in section A.I.1 shall be demonstrated by the stack test required in section A.V of this permit.

Compliance with the annual PE limit in section A.I.2.a shall be demonstrated by the results (in LB/MMBtu) of the stack test required in section A.V of this permit, multiplied by the actual heat input, in MMBtu/year, divided by 2000. The annual actual heat input is calculated as the sum of the 52 weekly products of the value from A.IV.1.a times A.IV.1.d.

5. Compliance with the SO₂ emission limit in section A.I.2.a shall be demonstrated by the record keeping requirements in section A.III and the reporting requirements in section A.IV of this permit.

Compliance with the annual SO₂ emission limit in sections A.I.2.a shall be demonstrated by multiplying the lbs SO₂/MMBtu value calculated in section A.III.1 of this permit, by the actual heat input, in MMBtu/year, and dividing by 2000. The annual actual heat input is calculated as the sum of the 52 weekly products of the value from A.IV.1.a times A.IV.1.d.

6. Compliance with the LB/MMBtu NO_x limit in section A.I.1 may be determined by multiplying the maximum coal capacity of the emissions unit (tons/hr) by the AP-42, Fifth Edition, Section 1.1, Table 1.1-1 (revised 7/93) emission factor of 13.7 lbs NO_x/ton of coal burned, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr) and by 2000.

If testing is required to demonstrate compliance with the allowable NO_x emission limits, testing shall be conducted using the following method:

Method 7 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

Compliance with the annual NO_x emission limit in section A.I.2.a shall be demonstrated by multiplying the annual amount of coal burned in the unit, in tons, by the AP-42, Fifth Edition, Section 1.1, Table 1.1-1 (revised 7/93) emission factor of 13.7 lbs NO_x/ton of coal burned, and then dividing by 2000.

7. Compliance with the annual CO emission limit in section A.I.2.a may be demonstrated by multiplying the annual coal burned in the unit, in tons, by the AP-42, Fifth Edition, Section 1.1, Table 1.1-1 (revised 7/93) emission factor of 5 lbs CO/ton of coal burned, and then dividing by 2000.

If testing is required to demonstrate compliance with the allowable CO emission limits, testing shall be conducted using the following method:

Method 10 of 40 CFR Part 60, Appendix A, or USEPA-approved variants.

VI. Miscellaneous Requirements

1. This emissions unit was specifically exempted from Federal Prevention of Significant Deterioration (PSD) requirements as a non-profit health or non-profit educational institution, pursuant to 40 CFR 52.21(i)(4)(vi).

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>
135.6 MMBtu / Hr Coal Fired Spreader Stoker Boiler w/ Fabric Filter		

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: 12MMBTU Gas Fired Stationary Engine (P001)

Activity Description: 12 MMBTU/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.

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>
12 MMBtu/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.	OAC rule 3745-31-05 (PTI 14-4484)	0.48 LB PE/HR*, and 1.39 TPY 2.2 LBS OC/HR*, and 6.49 TPY 6.75 LBS NOx/HR*, and 19.9 TPY 6.2 LBS CO/HR*, and 18.3 TPY *The hourly emission limits are based on the emissions unit's potentials to emit. Therefore, no record keeping or reporting is required to demonstrate compliance with these limits.
	OAC rule 3745-17-07(A)(1)	Visible emissions from this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)(5)(a)	Any owner or operator of a stationary internal combustion engine shall not cause or permit the particulate emissions from the engine's exhaust to exceed 0.25 pound per million Btu of actual heat input for a stationary small bore internal combustion engine.* *The proposed revision of Ohio's State Implementation Plan(SIP) increases the PE limitation for small bore internal combustion engines to 0.310 pound per million Btu of actual heat input. Upon promulgation of the SIP revision by USEPA, this emissions unit shall comply with the new less stringent standard.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 5900 hours, based upon a rolling, 12-month summation of the operating hours.
2. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the rolling, 12-month summation of the operating hours.
2. For each day during which the permittee burns a fuel other than natural gas, 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 deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall also submit annual reports which specify the total PE, OC, NO_x and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. Compliance with the LB/HR PE limit in section A.I.1 shall be determined using the emission factor of .040 LB PE/MMBtu (0.48 LB PE/HR) of actual heat input (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/HR emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 5

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

Compliance with the LBS/HR OC allowable emission rate in section A.I.1 shall be determined using the emission factor of 2.2 LBS OC/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 25

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

3. Compliance with the LBS/HR NO_x allowable emission rate in section A.I.1 shall be determined using the emission factor of 6.75 LBS NO_x/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 7

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

4. Compliance with the LBS/HR CO allowable emission rate in section A.I.1 shall be determined using the emission factor of 6.2 LBS CO/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 10

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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>
12 MMBtu / HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.		

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: 12MMBTU Gas Fired Stationary Engine (P002)

Activity Description: 12 MMBTU/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.

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>
12 MMBtu/HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.	OAC rule 3745-31-05 (PTI 14-4484)	0.48 LB PE/HR*, and 1.39 TPY 2.2 LBS OC/HR*, and 6.49 TPY 6.75 LBS NOx/HR*, and 19.9 TPY 6.2 LBS CO/HR*, and 18.3 TPY
		*The hourly emission limits are based on the emissions unit's potentials to emit. Therefore, no record keeping or reporting is required to demonstrate compliance with these limits.
	OAC rule 3745-17-07(A)(1)	Visible emissions from this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)(5)(a)	Any owner or operator of a stationary internal combustion engine shall not cause or permit the particulate emissions from the engine's exhaust to exceed 0.25 pound per million Btu of actual heat input for a stationary small bore internal combustion engine.*
		*The proposed revision of Ohio's State Implementation Plan(SIP) increases the PE limitation for small bore internal combustion engines to 0.310 pound per million Btu of actual heat input. Upon promulgation of the SIP revision by USEPA, this emissions shall may comply with the new less stringent standard.

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 5900 hours, based upon a rolling, 12-month summation of the operating hours.
2. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the rolling, 12-month summation of the operating hours.
2. For each day during which the permittee burns a fuel other than natural gas, 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 deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall also submit annual reports which specify the total PE, OC, NO_x and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with OAC rule 3745-17-07(A) shall be demonstrated by the methods outlined in OAC rule 3745-17-03(B)(3).
2. Compliance with the LB/HR PE limit in section A.I.1 shall be determined using the emission factor of .040 LB PE/MMBtu (0.48 LB PE/HR) of actual heat input (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable LB/HR emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 5

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

Compliance with the LBS/HR OC allowable emission rate in section A.I.1 shall be determined using the emission factor of 2.2 LBS OC/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 25

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- 3.** Compliance with the LBS/HR NO_x allowable emission rate in section A.I.1 shall be determined using the emission factor of 6.75 LBS NO_x/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 7

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- 4.** Compliance with the LBS/HR CO allowable emission rate in section A.I.1 shall be determined using the emission factor of 6.2 LBS CO/HR (as supplied by the vendor).

Compliance with the annual emission limit is assumed if the maximum annual operating hours limit in section A.II.1 of this permit is not exceeded.

If testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted using the following method:

40 CFR 60 Appendix A, Method 10

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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>
12 MMBtu / HR Natural Gas Fueled, Small Bore Stationary Internal Combustion Engines, With Lean Burn Controls.		

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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