



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
BUTLER COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:  
Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-02821  
Fac ID: 1409090081**

**DATE: 12/7/2006**

Miami University  
Sharmila Pradhan  
Miami University, 55 Hughes Hall  
Oxford, OH 45056

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

HCDES



**Permit To Install  
Terms and Conditions**

**Issue Date: 12/7/2006  
Effective Date: 12/7/2006**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-02821

Application Number: 14-02821  
Facility ID: 1409090081  
Permit Fee: **\$200**  
Name of Facility: Miami University  
Person to Contact: Sharmila Pradhan  
Address: Miami University, 55 Hughes Hall  
Oxford, OH 45056

Location of proposed air contaminant source(s) [emissions unit(s)]:

**501 E. High Street  
Oxford, Ohio**

Description of proposed emissions unit(s):

**Administrative Modification of PTI 14-02821, issued 8/11/1993, for Boiler No. 1 (B010), a 95 mmBtu/hour Coal, Natural Gas, No. 2 Fuel Oil-fired Boiler.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

#### 1. Monitoring and Related Record keeping 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, 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.
- 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 of federally enforceable 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 record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 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 shall be submitted pursuant to 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 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 re-issuance, or modification
- 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, 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 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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 ORC section 3704.08.

- 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.

## 10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

## 11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available

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Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

## **12. 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.

## **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

### **2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping of state-only enforceable 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 state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping 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,

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which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, 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. 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.

### **4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

### **5. Construction of New Sources(s)**

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit

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or cannot meet applicable standards.

**6. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit-To-Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
PE/PM <sub>10</sub>	10.37
SO <sub>2</sub>	104.387
NO <sub>x</sub>	54.02
CO	28.22
VOC	1.679

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## **Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

### **A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. 40 CFR - CHAPTER I - PART 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters

The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart DDDDD (NESHAP for Industrial/Commercial/Institutional Boilers and Process Heaters), in accordance with 40 CFR Parts 63.7480 through 63.7575 (including the Table(s) and Appendix(ices) referenced in Subpart DDDDD).

Ordinarily, these requirements would be incorporated into Part II of this permit; however, incorporating Subpart DDDDD into Part II of this permit was not practical due to technical incompatibilities and the limitations of the software program. In addition, numerous difficulties were encountered in attempting to copy and paste the Subpart's tables and/or equations into software program format.

The following emissions units in this permit are subject to the aforementioned requirements:

Emissions unit B010  
Emissions unit B014

### **B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

- 1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (B010) - Boiler No. 1 - 95 mmBtu/hour Vibragrate Coal, Natural Gas, and No. 2 Fuel Oil-fired Boiler with electrostatic precipitator (ESP) - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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OAC rule 3745-31-05(A)(3)

When burning natural gas:

Particulate emissions (PE) and Particulate Matter less than 10 microns (PM10) emissions shall not exceed 0.02 lb/mmBtu of actual heat input\*.

Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input\*.

Nitrogen Oxides (NO<sub>x</sub>) emissions shall not exceed 0.10 lb/mmBtu of actual heat input\*.

Carbon Monoxide (CO) emissions shall not exceed 0.035 lb/mmBtu of actual heat input\*.

Volatile Organic Compounds (VOC) emissions shall not exceed 0.0028 lb/mmBtu of actual heat input\*.

When burning No. 2 fuel oil:

Particulate emissions (PE) and Particulate Matter less than 10 microns (PM10) emissions shall not exceed 0.02 lb/mmBtu of actual heat input\*.

Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 0.30 lb/mmBtu of actual heat input.

Nitrogen Oxides (NO<sub>x</sub>) emissions shall not exceed 0.15 lb/mmBtu of actual heat input\*.

Carbon Monoxide (CO) emissions shall not exceed 0.036 lb/mmBtu of actual heat input\*.

Volatile Organic Compounds (VOC) emissions shall not exceed 0.001 lb/mmBtu of actual heat input\*.

See terms and conditions A.II.3 and A.II.5.

\*The emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-17-10(C)(1), OAC rule 3745-18-15(N), and OAC rule 3745-31-02(A)(2).

OAC rule 3745-31-02(A)(2) Voluntary Restriction to Avoid Prevention of Significant Deterioration	See terms and conditions A.I.2.a, A.II.1, and A.II.2.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) when burning only natural gas or No. 2 fuel oil.
OAC rule 3745-17-10(C)(1)	Particulate emissions (PE) shall not exceed 0.146 pound per mmBtu of actual heat input when burning coal.
OAC rule 3745-18-15(N)	Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.  See term and condition A.II.4.

**2. Additional Terms and Conditions**

**2.a** The maximum total annual emissions from this emissions unit, when burning any combination of natural gas, No. 2 fuel oil, and coal, shall not exceed the following emission limitations based upon a rolling, 12-month summation:

- 8.47 tons per year PE/PM<sub>10</sub>;
- 64.45 tons per year SO<sub>2</sub>;
- 16.52 tons per year NO<sub>x</sub>;
- 13.22 tons per year CO; and
- 0.1542 ton per year VOC.

The permittee has existing records to demonstrate compliance with these emissions limitations upon issuance of this permit.

**2.b** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, the visible emissions limitation, the use of natural gas and/or low sulfur No. 2 fuel oil, fuel usage restrictions, use of a continuous opacity monitor, the use of low-NO<sub>x</sub> burners, and emissions testing.

**II. Operational Restrictions**

Emissions Unit ID: **B010**

1. The maximum annual natural gas usage rate for this emissions unit shall not exceed 330 mmcf per year, based upon a rolling, 12-month summation of natural gas usage. The permittee has existing records to demonstrate compliance upon issuance of this permit, therefore first year monthly natural gas usage amounts are not necessary.
2. The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 1,573,000 gallons per year, based upon a rolling, 12-month summation of fuel oil usage. The permittee has existing records to demonstrate compliance upon issuance of this permit, therefore first year monthly fuel oil usage amounts are not necessary.
3. The quality of the No. 2 fuel oil burned in this emissions unit shall have a combination of sulfur content and heat content sufficient to meet the sulfur dioxide emission limitation of 0.30 lb SO<sub>2</sub>/mmBtu of actual heat input, and shall not exceed a maximum sulfur content of 0.3 percent by weight.
4. The quality of coal received for burning in this emissions unit shall have a combination of sulfur content and heat content, on an "as-received" wet basis, which is sufficient to comply with the allowable sulfur dioxide emission limitation.
5. The permittee shall install, operate, and maintain low-NO<sub>x</sub> burners, at all times when operating this emissions unit, for the combustion of natural gas and No. 2 fuel oil, that comply with the NO<sub>x</sub> heat input emission limitations listed in term and condition A.I.1.

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

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. The total amount of coal used, in tons per month;
  - b. The updated rolling, 12-month summation of coal usage, in tons (the total amount of tons for the current month plus the total amount of tons for the previous eleven calendar months);
  - c. The total amount of natural gas used, in mmcf per month;
  - d. The updated rolling, 12-month summation of natural gas usage, in mmcf (the total amount of mmcf for the current month plus the total amount of mmcf for the previous eleven calendar months);
  - e. The total amount of No.2 fuel oil used, in gallons per month;

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- f. The updated rolling, 12-month summation of fuel oil usage, in gallons (the total amount of gallons for the current month plus the total amount of gallons for the previous eleven calendar months);
  - g. The total emissions, in tons, for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO for each month; and
  - h. the updated rolling, 12-month summation emissions total, in tons, for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).
2. The permittee shall collect a representative sample of each shipment of coal which is received for burning. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each calendar month, the representative samples of coal from all shipments of coal which were received during that calendar month shall be combined into one composite sample.

Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

The permittee shall maintain monthly records of the total quantity of coal received, and the results of the analyses for ash content, sulfur content, and heat content.

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 sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of

Emissions Unit ID: **B010**

the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

4. The permittee shall operate and maintain a continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous opacity monitoring system including, but not limited to:

- a. Percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. Results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. Hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
- d. The date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. The date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- f. The reason (if known) and the corrective actions taken (if any) for each such event in (d) and (e).

The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60. The plan shall include, at a minimum, procedures for 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 accurate operation of the continuous opacity monitoring system on a continuous basis. The quality

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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.

The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that the continuous opacity monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter/document of certification shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

5. The permittee shall operate and maintain equipment to continuously monitor and record O<sub>2</sub> emitted from this emissions unit in percent O<sub>2</sub>.

The permittee shall maintain records of data obtained by the continuous O<sub>2</sub> monitoring system. Calibrations shall be according to manufacturer's recommendations. The permittee shall record calibration results of zero/span calibration checks, the magnitude of manual calibration adjustments, and the date of the calibration.

A logbook dedicated to the continuous O<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the following:
  - a. An identification of all exceedances of the rolling, 12-month natural gas usage limitation, as specified in Section A.II.1;
  - b. An identification of all exceedances of the rolling, 12-month No. 2 fuel oil usage limitation, as specified in Section A.II.2; and
  - c. An identification of all exceedances of the rolling, 12-month emission limitations for PE,/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO, as specified in Section A.I.2.a.

2. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Terms and Conditions of this permit unless otherwise specified.
3. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates for all shipments of coal received during a calendar month, calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.
4. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates for shipment of oil, calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.
5. The permittee shall submit quarterly reports on the quality and quantity of coal received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:
  - a. The total quantity of coal received (tons);
  - b. The average ash content (percent) of the coal received;
  - c. The average sulfur content (percent) of the coal received;
  - d. The average heat content (Btu/pound) of the coal received; and
  - e. The average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal received.

Compliance with the sulfur dioxide emission limit shall be determined each month by calculating the average monthly sulfur dioxide emission rate, using the results of the analyses of the monthly composite sample for sulfur content and heat content.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year, unless otherwise specified by the appropriate Ohio EPA

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District Office or local air agency, and shall cover the data obtained during the previous calendar quarter.

6. The permittee shall submit, on a quarterly basis, copies or summaries 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 or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) of 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); and
  - b. The calculated sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) for each shipment of oil.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year, unless otherwise specified by the appropriate Ohio EPA District Office or local air agency, and shall cover the oil shipments received during the previous calendar quarter.

7. The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity monitoring system:
  - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, 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 any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. If there are no exceedances during the calendar quarter, the permittee shall submit a statement to that effect.
  - b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:
    - i. The facility name and address;
    - ii. The manufacturer and model number of the continuous opacity monitor;

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- iii. The location of the continuous opacity monitor;
- iv. The exceedance report as detailed in (a) above;
- v. The total operating time (hours) of the emissions unit;
- vi. The total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
- vii. The date, time, and duration of any/each malfunction\* of the continuous opacity monitoring system, emissions unit, and/or control equipment;
- viii. The date, time, and duration of any downtime\* of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
- ix. The reason (if known) and the corrective actions taken (if any) for each event in (b)(vii) and (viii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

\* each downtime and malfunction event shall be reported regardless if there is an exceedance of the opacity limit

8. The permittee shall submit annual reports which specify the total PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

**V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitations:  
When burning natural gas:  
PE/PM<sub>10</sub> emissions shall not exceed 0.02 lb/mmBtu of actual heat input  
SO<sub>2</sub> emissions shall not exceed 0.0006 lb/mmBtu of actual heat input

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NO<sub>x</sub> shall not exceed 0.10 lb/mmBtu of actual heat input  
CO emissions shall not exceed 0.035 lb/mmBtu of actual heat input  
VOC emissions shall not exceed 0.0028 lb/mmBtu of actual heat input

When burning No. 2 fuel oil:

PE/PM<sub>10</sub> emissions shall not exceed 0.02 lb/mmBtu of actual heat input  
NO<sub>x</sub> shall not exceed 0.15 lb/mmBtu of actual heat input  
CO emissions shall not exceed 0.036 lb/mmBtu of actual heat input  
VOC emissions shall not exceed 0.001 lb/mmBtu of actual heat input

Applicable Compliance Method:

The emission limitations specified above are based upon the emission unit's potential to emit, the permittee-supplied emission factors, and the operational parameters as provided in the PTI application 14-02821, submitted September 25, 1992.

If required, the permittee shall demonstrate compliance with the PE/PM<sub>10</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 5, and 202.

If required, the permittee shall demonstrate compliance with the SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

If required, the permittee shall demonstrate compliance with the NO<sub>x</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

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

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

b. Emission Limitation:

PE shall not exceed 0.146 lb/mmBtu of actual heat input, when burning coal

Applicable Compliance Method:

If not previously conducted within 24 months prior to issuance of this permit, the permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

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- i. The emission testing shall be conducted within 6 months after issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE when burning coal.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1-4, and 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA District Office or local air agency.

- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

- c. Emission Limitations:  
Sulfur dioxide emissions shall not exceed 0.30 lb/mmBtu, when burning No. 2 oil  
Sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu, when burning coal

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation when burning No. 2 oil may be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

Compliance with the allowable sulfur dioxide emission limitation when burning coal may be demonstrated by documenting that the sulfur content of the coal received during a calendar month meets the limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

The total annual emissions from this emissions unit, shall not exceed the following as rolling, 12-month summations:

8.47 tons per year PE/PM<sub>10</sub>;  
 64.45 tons per year SO<sub>2</sub>;  
 16.52 tons per year NO<sub>x</sub>;  
 13.22 tons per year CO; and  
 0.1542 ton per year VOC.

Applicable Compliance Method:

Compliance with the SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limitations specified above shall be determined by the record keeping requirements specified in Section A.III.1 and the permittee-supplied pollutant-specific emission factors as provided in the PTI application 14-02821, submitted September 25, 1992.

Compliance with the PE /PM<sub>10</sub> emission limitation specified above shall be determined by the record keeping requirements specified in Section A.III.1, the permittee-supplied pollutant-specific emission factors when burning natural gas/fuel oil, and the emission testing when burning coal required in Section A.V.1.b of this permit.

2. Compliance with the rolling 12-month No. 2 fuel oil usage restriction specified in Section A.II.2 shall be determined by the record keeping requirements specified in Section A.III.1.
3. Compliance with the rolling 12-month natural gas usage restriction specified in Section A.II.1 shall be determined by the record keeping requirements specified in Section A.III.1.
4. Compliance with the sulfur content limitation for No. 2 fuel oil specified in Section A.II.3

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shall be determined by the record keeping requirements specified in Section A.III.3.

5. Ongoing compliance with the opacity limitation contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

**VI. Miscellaneous Requirements**

1. The terms and conditions of this permit to install shall supercede the terms and conditions of Permit to Install 14-02821, issued on August 11, 1993.

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (B010) - Boiler No. 1 - 95 mmBtu/hour Vibragrate Coal, Natural Gas, and No. 2 Fuel Oil-fired Boiler with electrostatic precipitator (ESP) - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	

2. **Additional Terms and Conditions**

- 2.a 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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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (B014) - Boiler No. 4 - 132 mmBtu/hour Natural Gas and No. 2 Fuel Oil-fired Boiler**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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OAC rule 3745-31-05(A)(3)	<p>When burning natural gas:</p> <p>Particulate emissions (PE) and Particulate Matter less than 10 microns (PM<sub>10</sub>) emissions shall not exceed 0.02 lb/mmBtu of actual heat input*.</p> <p>Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input*.</p> <p>Nitrogen Oxides (NO<sub>x</sub>) emissions shall not exceed 0.10 lb/mmBtu of actual heat input*.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input*.</p> <p>Volatile Organic Compounds (VOC) emissions shall not exceed 0.0014 lb/mmBtu of actual heat input*.</p> <p>When burning No. 2 fuel oil:</p> <p>Particulate emissions (PE) and Particulate Matter less than 10 microns (PM<sub>10</sub>) emissions shall not exceed 0.02 lb/mmBtu of actual heat input*.</p> <p>Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 0.30 lb/mmBtu of actual heat input.</p> <p>Nitrogen Oxides (NO<sub>x</sub>) emissions shall not exceed 0.15 lb/mmBtu of actual heat input*.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 0.035 lb/mmBtu of actual heat input*.</p> <p>Volatile Organic Compounds (VOC) emissions shall not exceed 0.001 lb/mmBtu of actual heat input*.</p> <p>See terms and conditions A.II.3 and A.II.4.</p> <p>*The emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-18-06(D), OAC rule 3745-31-05(C), and 40 CFR Part 60 Subpart Db.</p>
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OAC rule 3745-31-05(C) Synthetic Minor to Avoid Prevention of Significant Deterioration and New Source Review	See terms and conditions A.I.2.a, A.II.1, and A.II.2.
OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60 Subpart Db.
OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 pounds per mmBtu of actual heat input when burning natural gas or No. 2 fuel oil.
OAC rule 3745-18-06(D)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
40 CFR Part 60 Subpart Db New Source Performance Standard (NSPS)	See terms and conditions A.I.2.b and A.II.5.  The SO <sub>2</sub> and NO <sub>x</sub> lb/mmBtu emission limitations specified by this rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** The maximum total annual emissions from this emissions unit, when burning any combination of natural gas and No. 2 fuel oil, shall not exceed the following emission limitations based upon a rolling, 12-month summation:

1.9 tons per year PE/PM<sub>10</sub>;  
 39.937 tons per year SO<sub>2</sub>;  
 37.5 tons per year NO<sub>x</sub>;  
 15 tons per year CO; and  
 1.525 tons per year VOC.

The permittee has existing records to demonstrate compliance with these emissions limitations upon issuance of this permit.

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- 2.b** Visible particulate emissions from the stack shall not exceed 20 percent (20%) opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent (27%) opacity. This opacity limitation does not apply during periods of startup, shutdown, or malfunction.
- 2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, the visible emissions limitation, the use of natural gas and/or very low sulfur No. 2 fuel oil, fuel usage restrictions, use of a continuous NO<sub>x</sub> monitor, and the use of low-NO<sub>x</sub> burners.
- 2.d** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

**II. Operational Restrictions**

- 1.** The maximum annual natural gas usage rate for this emissions unit shall not exceed 750 mmcf per year, based upon a rolling, 12-month summation of natural gas usage. The permittee has existing records to demonstrate compliance upon issuance of this permit, therefore first year monthly natural gas usage amounts are not necessary.
- 2.** The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 1,875,000 gallons per year, based upon a rolling, 12-month summation of fuel oil usage. The permittee has existing records to demonstrate compliance upon issuance of this permit, therefore first year monthly fuel oil usage amounts are not necessary.
- 3.** The quality of the No. 2 fuel oil burned in this emissions unit shall have a combination of sulfur content and heat content sufficient to meet the sulfur dioxide emission limitation of 0.30 lb SO<sub>2</sub>/mmBtu of actual heat input, and shall not exceed a maximum sulfur content of 0.3 percent by weight.
- 4.** The permittee shall install, operate, and maintain low-NO<sub>x</sub> burners, that comply with the NO<sub>x</sub> heat input limitation listed in term A.I.1 of this emissions unit, at all times when operating this emissions unit.
- 5.** This emissions unit shall comply with the definition of an infrequently operated source when burning No. 2 fuel oil, pursuant to 40 CFR 60.13(i)(2), based upon an annual capacity factor for No. 2 fuel oil of no more than 10 percent as determined pursuant to

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40 CFR Part 60.41(b). Compliance with the record keeping requirements in Section A.III.1 will demonstrate compliance with the annual capacity factor limitation.

6. The permittee shall burn only natural gas or No. 2 fuel oil in this emissions unit.

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

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. The total amount of natural gas used, in mmcf per month;
  - b. The updated rolling, 12-month summation of natural gas usage, in mmcf (the total amount of mmcf for the current month plus the total amount of mmcf for the previous eleven calendar months);
  - c. The total amount of No.2 fuel oil used, in gallons per month;
  - d. The updated rolling, 12-month summation of fuel oil usage, in gallons (the total amount of gallons for the current month plus the total amount of gallons for the previous eleven calendar months);
  - e. The calculation of the annual capacity factor, pursuant to 40 CFR 60.41b, for No. 2 fuel oil in order to demonstrate infrequent operation of this emissions unit;
  - f. The total emissions, in tons, for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO for each month; and
  - g. The updated rolling, 12-month summation emissions total, in tons, for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19,

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or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to:

- a. Emissions of NO<sub>x</sub> in parts per million on an instantaneous (one-minute) basis;
- b. Emissions of NO<sub>x</sub> in all units of the applicable standard(s) in the appropriate averaging period;
- c. Results of quarterly cylinder gas audits;
- d. Results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. Results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. Hours of operation of the emissions unit, continuous NO<sub>x</sub> monitoring system, and control equipment;
- g. The date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO<sub>x</sub> monitoring system;
- h. The date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO<sub>x</sub> monitoring system; as well as,
- i. The reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

The permittee shall maintain on-site, the document of certification received from the

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U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO<sub>x</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2. The letter/document of certification shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

4. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system, designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

5. The permittee shall operate and maintain equipment to continuously monitor and record O<sub>2</sub> emitted from this emissions unit in percent O<sub>2</sub>.

The permittee shall maintain records of data obtained by the continuous O<sub>2</sub> monitoring system. Calibrations shall be according to manufacturer's recommendations. The permittee shall record calibration results of zero/span calibration checks, the magnitude of manual calibration adjustments, and the date of the calibration.

A logbook dedicated to the continuous O<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.

6. The permittee shall conduct, or have conducted, a 6-minute visible particulate emissions test for each daylight shift that this emissions unit burns No. 2 fuel oil. The visible particulate emissions test shall be conducted at the maximum rate of oil consumption during the shift. In addition, the permittee shall conduct, or have conducted, a 6-minute visible particulate emissions test whenever this emissions unit reaches operating load after a cold startup with No. 2 fuel oil.

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The visible particulate emissions tests shall be performed in accordance with the following requirements:

- a. The following test method(s) shall be employed to demonstrate compliance with the visible particulate limitation: Method 9 as outlined in 40 CFR Part 60, Appendix A;
- b. The visible particulate emissions test shall be conducted by a certified visible emissions evaluator who has met the specifications of Method 9 outlined in 40 CFR Part 60, Appendix A, and
- c. If the average opacity for a 6-minute set of observations exceeds 10 percent, the observer shall perform two additional 6-minute sets of visible emission observations.

A comprehensive written report on the results of the visible particulate emissions test shall be signed by the person or persons responsible for the test and retained for a period of five years from the date the record was created. This report shall contain the following information:

- a. A copy of the completed visible emissions evaluation form containing the date and time of the test and results of each observation; and
  - b. A copy of the visible emissions evaluator certification.
7. This emissions unit shall be operated and maintained in accordance with the manufacturer's recommendations. The permittee shall maintain records verifying that necessary maintenance activities have been performed on this emissions unit.
  8. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**IV. Reporting Requirements**

1. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
  - a. Construction date (no later than 30 days after such date);

- b. Actual start-up date (within 15 days after such date); and
- c. Date of performance testing (if required, at least 30 days prior to testing).

Reports, including the new source information required under 40 CFR 60.49b(a), are to be sent to:

Hamilton County Environmental Services  
250 William Howard Taft Road  
Cincinnati, Ohio 45219

2. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates for shipment of oil, calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.
3. The permittee shall submit, on a quarterly basis, copies or summaries 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 or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) of 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); and
  - b. The calculated sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) for each shipment of oil.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year, unless otherwise specified by the appropriate Ohio EPA District Office or local air agency, and shall cover the oil shipments received during the previous calendar quarter.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the following:
  - a. An identification of all exceedances of the rolling, 12-month natural gas usage limitation, as specified in Section A.II.1;

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- b. An identification of all exceedances of the rolling, 12-month No. 2 fuel oil usage limitation, as specified in Section A.II.2;
  - c. an identification of all exceedances of the annual capacity factor limitation for infrequent operation as specified in Section A.II.5; and
  - d. an identification of all exceedances of the rolling, 12-month emission limitations for PE,/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO, as specified in Section A.I.2.a.
5. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Terms and Conditions of this permit unless otherwise specified.
  6. The permittee shall submit annual reports which specify the total SO<sub>2</sub> and NO<sub>x</sub> emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.
  7. The permittee shall submit quarterly reports to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances when the 6-minute average opacity exceeds the applicable limits specified in the terms and conditions A.I.2.b of this permit when burning No. 2 fuel oil during the previous calendar quarter. In addition, the excess emission reports shall include the total time of the visible emission observations during the calendar quarter and the total amount of fuel oil burned during the calendar quarter.

If there are no excess emissions during the previous 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. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

8. The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO<sub>x</sub> monitoring system:
  - a. Pursuant to the monitoring, record keeping, and reporting requirements for

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continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, 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 NO<sub>x</sub> emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

- b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:
- i. The facility name and address;
  - ii. The manufacturer and model number of the continuous NO<sub>x</sub> and other associated monitors;
  - iii. The location of the continuous NO<sub>x</sub> monitor;
  - iv. The exceedance report as detailed in (a) above;
  - v. The total operating time (hours) of the emissions unit;
  - vi. The total operating time of the continuous NO<sub>x</sub> monitoring system while the emissions unit was in operation;
  - vii. Results and dates of quarterly cylinder gas audits;
  - viii. Results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
  - ix. The results of any relative accuracy test audit showing the continuous NO<sub>x</sub> monitor out-of-control and the compliant results following any corrective actions;
  - x. The date, time, and duration of any/each malfunction\* of the continuous NO<sub>x</sub> monitoring system, emissions unit, and/or control equipment;
  - xi. The date, time, and duration of any downtime\* of the continuous NO<sub>x</sub>

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monitoring system and/or control equipment while the emissions unit was in operation; and

- xii. The reason (if known) and the corrective actions taken (if any) for each event in (b)(x) and (xi).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

\* each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- 9. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil. The notification shall include a copy of such record and shall be submitted to the Hamilton County Department of Environmental Services within 30 days after the deviation occurs.

**V. Testing Requirements**

- 1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

When burning natural gas:

PE/PM<sub>10</sub> emissions shall not exceed 0.02 lb/mmBtu of actual heat input

SO<sub>2</sub> emissions shall not exceed 0.0006 lb/mmBtu of actual heat input

NO<sub>x</sub> shall not exceed 0.10 lb/mmBtu of actual heat input

CO emissions shall not exceed 0.035 lb/mmBtu of actual heat input

VOC emissions shall not exceed 0.0014 lb/mmBtu of actual heat input

When burning No. 2 fuel oil:

PE/PM<sub>10</sub> emissions shall not exceed 0.02 lb/mmBtu of actual heat input

NO<sub>x</sub> shall not exceed 0.15 lb/mmBtu of actual heat input

CO emissions shall not exceed 0.036 lb/mmBtu of actual heat input

VOC emissions shall not exceed 0.001 lb/mmBtu of actual heat input

Applicable Compliance Method:

The emission limitations specified above are based upon the emission unit's potential to emit, the permittee-supplied emission factors, and the operational

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parameters as provided in the PTI application 14-02821, submitted September 25, 1992.

If required, the permittee shall demonstrate compliance with the PE/PM10 emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 5, and 202.

If required, the permittee shall demonstrate compliance with the SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

Compliance with the NO<sub>x</sub> emission limitations shall be demonstrated by the data collected by the continuous NO<sub>x</sub> monitoring system specified in term and condition A.III.3. If required, the permittee shall demonstrate compliance with the NO<sub>x</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

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

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

b. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.30 lbs/mmBtu, when burning No. 2oil

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation when burning No. 2 oil may be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

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

c. Emission Limitations:

The total annual emissions from this emissions unit, shall not exceed the following as rolling, 12-month summations:

1.9 tons per year PE/PM<sub>10</sub>;  
39.937 tons per year SO<sub>2</sub>;  
37.5 tons per year NO<sub>x</sub>;

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15 tons per year CO; and  
1.525 tons per year VOC.

Applicable Compliance Method:

Compliance with the PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limitations specified above shall be determined by the record keeping requirements specified in Section A.III.1, data collected by the NO<sub>x</sub> monitoring system, and the permittee-supplied pollutant-specific emission factors as provided in the PTI application 14-02821, submitted September 25, 1992.

2. Compliance with the rolling 12-month No. 2 fuel oil usage restriction specified in Section A.II.2 shall be determined by the record keeping requirements specified in Section A.III.1.
3. Compliance with the rolling 12-month natural gas usage restriction specified in Section A.II.1 shall be determined by the record keeping requirements specified in Section A.III.1.
4. Compliance with the sulfur content limitation for No. 2 fuel oil specified in Section A.II.3 shall be determined by the record keeping requirements specified in Section A.III.2.
5. Compliance with the annual capacity factor limitation when burning No. 2 fuel oil specified in Section A.II.5 shall be determined by the record keeping requirements specified in Section A.III.1.
6. Ongoing compliance with the NO<sub>x</sub> emission limitations contained in this permit, 40 CFR Part 60 and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

**VI. Miscellaneous Requirements**

1. The terms and conditions of this permit to install shall supercede the terms and conditions of Permit to Install 14-02821, issued on August 11, 1993.
2. The permittee submitted a plan to US EPA Region 5 and received approval of an alternative opacity monitoring program for this emissions unit based on infrequent operation of this emission unit when burning No. 2 fuel oil pursuant to 40 CFR 60.13(i)(2). Compliance with the opacity limitations under the alternative plan shall be

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demonstrated by the monitoring, record keeping, and reporting requirements specified above in Section A.III.6, A.III.7, and A.IV.7. Compliance with the infrequent operation designation of this emissions unit shall be demonstrated by the monitoring and record keeping requirements specified above in Section A.III.1. If this emissions unit exceeds the annual capacity factor limitation for No. 2 fuel oil use specified in Section A.II.5 based on the required record keeping in Section A.III.1, the permittee shall comply with continuous opacity monitoring requirements, including the installation and certification of a continuous opacity monitoring system, as specified in 40 CFR 60.48b.

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (B014) - Boiler No. 4 - 132 mmBtu/hour Natural Gas and No. 2 Fuel Oil-fired Boiler**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	

2. **Additional Terms and Conditions**

- 2.a 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