



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
MONTGOMERY 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: 08-04743**

**Fac ID: 0857040692**

**DATE: 2/16/2006**

Veterans Administration Medical Center  
Gary Abreu  
mail stop 138 4100 W. 3rd St  
Dayton, OH 454289000

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

RAPCA



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**Permit To Install  
Terms and Conditions**

**Issue Date: 2/16/2006  
Effective Date: 2/16/2006**

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**FINAL PERMIT TO INSTALL 08-04743**

Application Number: 08-04743  
Facility ID: 0857040692  
Permit Fee: **\$1600**  
Name of Facility: Veterans Administration Medical Center  
Person to Contact: Gary Abreu  
Address: mail stop 138 4100 W. 3rd St  
Dayton, OH 454289000

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**4100 W. 3rd Street  
Dayton, Ohio**

Description of proposed emissions unit(s):  
**Chapter 31 modification to upgrade boilers from oil fuel to natural gas fired.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit 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 emissions unit(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 and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install 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 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

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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. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install 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.

**9. Construction of New Sources(s)**

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The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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 or cannot meet applicable standards.

#### **10. 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.

#### **11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

#### **12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

**15. 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 this Permit to Install.

**B. 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>
Particulates	1.6
OC	1.9
NOx	19.8
CO	14.7

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**SO<sub>2</sub>**

**11.8**

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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

Applicable Rules/Requirements

B001 - Natural Gas and No. 2 Oil Fired Boiler No. 1 Rated at 52 MMBTU/hr Heat Input	OAC rule 3745-31-05(A)(3)
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OAC rule 3745-17-07(A)(1)

OAC rule 3745-17-10(B)(1)  
OAC rule 3745-18-06(D)

Vetera  
PTI A  
Issued: 2/16/2006

Emissions Unit ID: **B001**

OAC rule 3745-21-08(B)  
OAC rule 3745-23-06(B)

Applicable Emissions  
Limitations/Control Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.014 lb/mmBtu.

PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 tons per year (TPY).

Organic compound (OC) emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Sulfur dioxide (SO<sub>2</sub>) emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-31-05(C), 3745-21-08(B) and 3745-23-06(B).

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See A.2.c.

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

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

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, it is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally approved SIP for Ohio.

## **B. Operational Restrictions**

- 1.** The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
- 2.** The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.50 lb/mmBtu of actual heat input and the sulfur

Emissions Unit ID: B001

content limitation for No. 2 fuel oil of less than or equal to 0.5 weight percent sulfur.

3. The monthly No. 2 fuel oil usage rate for this emissions unit shall not exceed 27,500 gallons.
4. The monthly natural gas usage rate for this emissions unit shall not exceed 27.5 million cubic feet (mmcf).

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

- c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.
2. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003 and B004:
  - a. The total combined quantity of No. 2 fuel oil burned, in gallons.
  - b. The total combined quantity of natural gas burned, in mmcf.

#### **D. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
2. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation and/or sulfur content limitation based upon the record keeping requirements from C.1 above.
3. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable monthly No. 2 fuel oil and/or natural gas usage limitation.
4. The notifications identified in terms D.1, D.2 and D.3 shall include a copy of such record and shall be sent to the Director (the appropriate local air agency or District Office) within 45 days after the deviation occurs.

#### **E. Testing Requirements**

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

Emissions Unit ID: B001

- a. Emission Limitation(s):  
PE from this emissions unit shall not exceed 0.014 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- b. Emission Limitation(s):  
PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 7.6 lbs PE/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
- iii. Sum i + ii

- c. Emission Limitation(s):  
OC emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- d. Emission Limitation(s):

OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Applicable Compliance Method(s):

- i. Multiply the emission factor 0.56 lb OC/1000 gal No. 2 fuel oil (AP-42, Table 1.3-3, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
- iii. Sum i + ii

e. Emission Limitation(s):

NOx emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

f. Emission Limitation(s):

NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 100 lbs NOx/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by

2,000 lbs/ton.

iii. Sum i + ii

- g. Emission Limitation(s):  
CO emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- h. Emission Limitation(s):  
CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Applicable Compliance Method(s):

i. Multiply the emission factor 5 lbs CO/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.

ii. Multiply the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.

iii. Sum i + ii

- i. Emission Limitation(s):  
SO<sub>2</sub> emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

Applicable Compliance Method(s):

Compliance shall be demonstrated in accordance with the record keeping requirements specified in Section C.1 and shall be determined in accordance

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**Issue**

**Facility ID: 0857040692**

**Emissions Unit ID: B001**

with the following formula, as specified in OAC rule 3745-18-04(F):

$$ER = (1 \times 10^6) / H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of SO<sub>2</sub>/mmBtu;  
H = the heat content of the No. 2 fuel oil in Btu/gallon;  
D = the density of the No. 2 fuel oil in lbs/gallon; and  
S = the decimal fraction of sulfur in the No. 2 fuel oil.

- j. Emission Limitation(s):  
SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

Applicable Compliance Method(s):  
Compliance with the emission limitation is determined as follows:

- i. Multiply the lb/mmBtu SO<sub>2</sub> emission rate, as determined in E.1.i above, by the heat content of No. 2 fuel oil (140,000 Btu/gal), by the total combined quantity of No. 2 fuel oil burned, in gallons, and divide by  $2 \times 10^9$ .
  - ii. Multiply the emission factor 0.6 lbs SO<sub>2</sub>/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- k. Emission Limitation(s):  
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

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

## F. Miscellaneous Requirements

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B002 - Natural Gas and No. 2 Oil Fired Boiler No. 2 Rated at 52 MMBTU/hr Heat Input	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(D)

Vetera  
PTI A  
Issued: 2/16/2006

Emissions Unit ID: **B002**

OAC rule 3745-21-08(B)  
OAC rule 3745-23-06(B)

Applicable Emissions  
Limitations/Control Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.014 lb/mmBtu.

PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 tons per year (TPY).

Organic compound (OC) emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7

TPY.

Sulfur dioxide (SO<sub>2</sub>) emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-31-05(C), 3745-21-08(B) and 3745-23-06(B).

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See A.2.c.

**2. Additional Terms and Conditions**

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

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, it is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally approved SIP for Ohio.

**B. Operational Restrictions**

1. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
2. The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.50 lb/mmBtu of actual heat input and the sulfur content limitation for No. 2 fuel oil of less than or equal to 0.5 weight percent sulfur.

3. The monthly No. 2 fuel oil usage rate for this emissions unit shall not exceed 27,500 gallons.
4. The monthly natural gas usage rate for this emissions unit shall not exceed 27.5 million cubic feet (mmcf).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

- c. The permittee shall perform or require the supplier to perform the analyses for

Emissions Unit ID: **B002**

sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

2. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003 and B004:
  - a. The total combined quantity of No. 2 fuel oil burned, in gallons.
  - b. The total combined quantity of natural gas burned, in mmcf.

#### **D. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
2. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation and/or sulfur content limitation based upon the record keeping requirements from C.1 above.
3. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable monthly No. 2 fuel oil and/or natural gas usage limitation.
4. The notifications identified in terms D.1, D.2 and D.3 shall include a copy of such record and shall be sent to the Director (the appropriate local air agency or District Office) within 45 days after the deviation occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions

shall be determined in accordance with the following methods:

- a. Emission Limitation(s):  
PE from this emissions unit shall not exceed 0.014 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- b. Emission Limitation(s):  
PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 7.6 lbs PE/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
- iii. Sum i + ii

- c. Emission Limitation(s):  
OC emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR

Part 60, Appendix A, Methods 1- 4, and 25.

- d. Emission Limitation(s):  
OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Applicable Compliance Method(s):

- i. Multiply the emission factor 0.56 lb OC/1000 gal No. 2 fuel oil (AP-42, Table 1.3-3, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
- iii. Sum i + ii

- e. Emission Limitation(s):  
NOx emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- f. Emission Limitation(s):  
NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.

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- ii. Multiply the emission factor 100 lbs NO<sub>x</sub>/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- g. Emission Limitation(s):  
CO emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- h. Emission Limitation(s):  
CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Applicable Compliance Method(s):

- i. Multiply the emission factor 5 lbs CO/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
  - ii. Multiply the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- i. Emission Limitation(s):  
SO<sub>2</sub> emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

Applicable Compliance Method(s):

Compliance shall be demonstrated in accordance with the record keeping requirements specified in Section C.1 and shall be determined in accordance

with the following formula, as specified in OAC rule 3745-18-04(F):

$$ER = (1 \times 10^6) / H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of SO<sub>2</sub>/mmBtu;  
H = the heat content of the No. 2 fuel oil in Btu/gallon;  
D = the density of the No. 2 fuel oil in lbs/gallon; and  
S = the decimal fraction of sulfur in the No. 2 fuel oil.

- j. Emission Limitation(s):  
SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the lb/mmBtu SO<sub>2</sub> emission rate, as determined in E.1.i above, by the heat content of No. 2 fuel oil (140,000 Btu/gal), by the total combined quantity of No. 2 fuel oil burned, in gallons, and divide by  $2 \times 10^9$ .
  - ii. Multiply the emission factor 0.6 lbs SO<sub>2</sub>/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- k. Emission Limitation(s):  
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method(s):

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

## F. Miscellaneous Requirements

None

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B003 - Natural Gas and No. 2 Oil Fired Boiler No. 3 Rated at 26 MMBTU/hr Heat Input	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(D)

Emissions Unit ID: B003

OAC rule 3745-21-08(B)  
OAC rule 3745-23-06(B)

Applicable Emissions  
Limitations/Control Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.014 lb/mmBtu.

PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 tons per year (TPY).

Organic compound (OC) emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Sulfur dioxide (SO<sub>2</sub>) emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-31-05(C), 3745-21-08(B) and 3745-23-06(B).

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See A.2.c.

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

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

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, it is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally approved SIP for Ohio.

## **B. Operational Restrictions**

- 1.** The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
- 2.** The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.50 lb/mmBtu of actual heat input and the sulfur

content limitation for No. 2 fuel oil of less than or equal to 0.5 weight percent sulfur.

3. The monthly No. 2 fuel oil usage rate for this emissions unit shall not exceed 27,500 gallons.
4. The monthly natural gas usage rate for this emissions unit shall not exceed 27.5 million cubic feet (mmcf).

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

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- c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.
2. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
  3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003 and B004:
    - a. The total combined quantity of No. 2 fuel oil burned, in gallons.
    - b. The total combined quantity of natural gas burned, in mmcf.

#### **D. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
2. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation and/or sulfur content limitation based upon the record keeping requirements from C.1 above.
3. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable monthly No. 2 fuel oil and/or natural gas usage limitation.
4. The notifications identified in terms D.1, D.2 and D.3 shall include a copy of such record and shall be sent to the Director (the appropriate local air agency or District Office) within 45 days after the deviation occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation(s):

PE from this emissions unit shall not exceed 0.014 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- b. Emission Limitation(s):  
PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
  - ii. Multiply the emission factor 7.6 lbs PE/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
  - iii. Sum i + ii
- c. Emission Limitation(s):  
OC emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- d. Emission Limitation(s):

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OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Applicable Compliance Method(s):

- i. Multiply the emission factor 0.56 lb OC/1000 gal No. 2 fuel oil (AP-42, Table 1.3-3, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
- iii. Sum i + ii

e. Emission Limitation(s):

NOx emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

f. Emission Limitation(s):

NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 100 lbs NOx/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.

iii. Sum i + ii

- g. Emission Limitation(s):  
CO emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- h. Emission Limitation(s):  
CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Applicable Compliance Method(s):

i. Multiply the emission factor 5 lbs CO/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.

ii. Multiply the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.

iii. Sum i + ii

- i. Emission Limitation(s):  
SO<sub>2</sub> emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

Applicable Compliance Method(s):

Compliance shall be demonstrated in accordance with the record keeping requirements specified in Section C.1 and shall be determined in accordance with the following formula, as specified in OAC rule 3745-18-04(F):

$$ER = (1 \times 10^6) / H \times D \times S \times 1.974$$

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**Issue**

**Facility ID: 0857040692**

**Emissions Unit ID: B003**

where: ER = the emission rate in pounds of SO<sub>2</sub>/mmBtu;  
 H = the heat content of the No. 2 fuel oil in Btu/gallon;  
 D = the density of the No. 2 fuel oil in lbs/gallon; and  
 S = the decimal fraction of sulfur in the No. 2 fuel oil.

- j. Emission Limitation(s):  
 SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

Applicable Compliance Method(s):  
 Compliance with the emission limitation is determined as follows:

- i. Multiply the lb/mmBtu SO<sub>2</sub> emission rate, as determined in E.1.i above, by the heat content of No. 2 fuel oil (140,000 Btu/gal), by the total combined quantity of No. 2 fuel oil burned, in gallons, and divide by  $2 \times 10^9$ .
  - ii. Multiply the emission factor 0.6 lbs SO<sub>2</sub>/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- k. Emission Limitation(s):  
 Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

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

## **F. Miscellaneous Requirements**

None



Veteran  
PTI A  
Issued: 2/16/2006

Emissions Unit ID: **B004**

OAC rule 3745-21-08(B)  
OAC rule 3745-23-06(B)

Applicable Emissions  
Limitations/Control Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.014 lb/mmBtu.

PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 tons per year (TPY).

Organic compound (OC) emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

OC emissions from emissions units B001, B002, B003 and B004 shall not exceed 1.9 TPY.

Nitrogen oxides (NO<sub>x</sub>) emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

NO<sub>x</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Sulfur dioxide (SO<sub>2</sub>) emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-31-05(C), 3745-21-08(B) and 3745-23-06(B).

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

See A.2.c.

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

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

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

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, it is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally approved SIP for Ohio.

## **B. Operational Restrictions**

- 1.** The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
- 2.** The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.50 lb/mmBtu of actual heat input and the sulfur

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content limitation for No. 2 fuel oil of less than or equal to 0.5 weight percent sulfur.

3. The monthly No. 2 fuel oil usage rate for this emissions unit shall not exceed 27,500 gallons.
4. The monthly natural gas usage rate for this emissions unit shall not exceed 27.5 million cubic feet (mmcf).

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

- c. The permittee shall perform or require the supplier to perform the analyses for

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sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

2. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003 and B004:
  - a. The total combined quantity of No. 2 fuel oil burned, in gallons.
  - b. The total combined quantity of natural gas burned, in mmcf.

#### **D. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
2. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation and/or sulfur content limitation based upon the record keeping requirements from C.1 above.
3. The permittee shall notify the Director (the appropriate local air agency or District Office) in writing of any record which shows a deviation of the allowable monthly No. 2 fuel oil and/or natural gas usage limitation.
4. The notifications identified in terms D.1, D.2 and D.3 shall include a copy of such record and shall be sent to the Director (the appropriate local air agency or District Office) within 45 days after the deviation occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation(s):  
PE from this emissions unit shall not exceed 0.014 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- b. Emission Limitation(s):  
 PE from emissions units B001, B002, B003 and B004 shall not exceed 1.6 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 2 lbs PE/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
  - ii. Multiply the emission factor 7.6 lbs PE/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
  - iii. Sum i + ii
- c. Emission Limitation(s):  
 OC emissions from this emissions unit shall not exceed 0.011 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- d. Emission Limitation(s):  
 OC emissions from emissions units B001, B002, B003 and B004 shall not

exceed 1.9 TPY.

Applicable Compliance Method(s):

- i. Multiply the emission factor 0.56 lb OC/1000 gal No. 2 fuel oil (AP-42, Table 1.3-3, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
  - ii. Multiply the emission factor 11 lbs OC/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton
  - iii. Sum i + ii
- e. Emission Limitation(s):  
NOx emissions from this emissions unit shall not exceed 0.14 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on multiplying the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by 1,000,000 Btu/mmBtu and dividing by the heat content of No. 2 fuel oil (140,000 Btu/gal).

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

- f. Emission Limitation(s):  
NOx emissions from emissions units B001, B002, B003 and B004 shall not exceed 19.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the emission factor 20 lbs NOx/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.
- ii. Multiply the emission factor 100 lbs NOx/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.

iii. Sum i + ii

- g. Emission Limitation(s):  
 CO emissions from this emissions unit shall not exceed 0.083 lb/mmBtu.

Applicable Compliance Method(s):

The emission limitation is based on dividing the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the heat content of natural gas (1,015 mmBtu/mmcf).

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

- h. Emission Limitation(s):  
 CO emissions from emissions units B001, B002, B003 and B004 shall not exceed 14.7 TPY.

Applicable Compliance Method(s):

i. Multiply the emission factor 5 lbs CO/1000 gal No. 2 fuel oil (AP-42, Table 1.3-1, 9/98) by the quantity of No. 2 fuel oil burned, in gallons, and divide by 2,000 lbs/ton.

ii. Multiply the emission factor 84 lbs CO/mmcf natural gas (AP-42, Table 1.4-1, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.

iii. Sum i + ii

- i. Emission Limitation(s):  
 SO<sub>2</sub> emissions from this emissions unit shall not exceed 0.50 lb/mmBtu.

Applicable Compliance Method(s):

Compliance shall be demonstrated in accordance with the record keeping requirements specified in Section C.1 and shall be determined in accordance with the following formula, as specified in OAC rule 3745-18-04(F):

$$ER = (1 \times 10^6) / H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of SO<sub>2</sub>/mmBtu;

H = the heat content of the No. 2 fuel oil in Btu/gallon;  
D = the density of the No. 2 fuel oil in lbs/gallon; and  
S = the decimal fraction of sulfur in the No. 2 fuel oil.

- j. Emission Limitation(s):  
SO<sub>2</sub> emissions from emissions units B001, B002, B003 and B004 shall not exceed 11.8 TPY.

Applicable Compliance Method(s):

Compliance with the emission limitation is determined as follows:

- i. Multiply the lb/mmBtu SO<sub>2</sub> emission rate, as determined in E.1.i above, by the heat content of No. 2 fuel oil (140,000 Btu/gal), by the total combined quantity of No. 2 fuel oil burned, in gallons, and divide by  $2 \times 10^9$ .
  - ii. Multiply the emission factor 0.6 lbs SO<sub>2</sub>/mmcf natural gas (AP-42, Table 1.4-2, 7/98) by the quantity of natural gas burned, in mmcf, and divide by 2,000 lbs/ton.
  - iii. Sum i + ii
- k. Emission Limitation(s):  
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method(s):

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

## F. Miscellaneous Requirements

None