



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

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

Mailing Address:

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

**RE: FINAL PERMIT TO INSTALL
CUYAHOGA COUNTY
Application No: 13-04759
Fac ID: 1318004311**

DATE: 6/13/2008

Cleveland Clinic Foundation
Bruce Richardson
7680 Hub Parkway
Cleveland, OH 44125

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

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 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 

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

CC: USEPA

CLAA



Permit To Install
Terms and Conditions

Issue Date: 6/13/2008
Effective Date: 6/13/2008

FINAL PERMIT TO INSTALL 13-04759

Application Number: 13-04759
Facility ID: 1318004311
Permit Fee: **\$1600**
Name of Facility: Cleveland Clinic Foundation
Person to Contact: Bruce Richardson
Address: 7680 Hub Parkway
Cleveland, OH 44125

Location of proposed air contaminant source(s) [emissions unit(s)]:
9500 Euclid Avenue
Cleveland, Ohio

Description of proposed emissions unit(s):
Installation of four Cleaver Brooks 12.553 MMBTU/HR natural gas fired boilers with oil backup in Building MM (89th Street Garage and Service Center location) (B024 - B027).

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

Chris Korleski
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 (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. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air

contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. 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)

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.

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>
PE	4.36
SO2	6.28

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 - (B024) - 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.57 TPY as a rolling, 12-month summation. This emissions unit shall not operate more than 500 hours per year while burning No. 2 fuel oil as a rolling, 12-month summation.
OAC rule 3745-31-05(A)(3)(a)(ii)	See term A.2.d and A.2.e below.
OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 40 CFR Part 60 Subpart Dc.
OAC rule 3745-17-10(B)(1)	0.02 lb of particulate emissions per mmBtu
OAC rule 3745-18-06(D)	When burning No. 2 fuel oil, the emissions limitation specified by this rule is less stringent that the emissions limitation established pursuant to 40 CFR Part 60 Subpart Dc .
40 CFR Part 60 Subpart Dc	0.5 lb of SO ₂ emissions per mmBtu when burning No. 2 fuel oil. Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
OAC rule 3745-21-08(B)	See term A.2.c.

2. Additional Terms and Conditions

- 2.a The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection

Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).

- 2.b The lb/mmBtu actual heat input and tons per year emission limitations, except for SO₂, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- 2.c The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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 U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions 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.

- 2.d The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled NO_x, OC, PE, and CO emissions from this emissions unit since the potential to emit for NO_x, OC, PE, and CO are each less than ten tons per year.
- 2.e Permit to Install 13-04759 for this emissions unit takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for SO₂ emissions:
 - a. The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year.

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 per cent sulfur.
3. The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	50
1-2	100
1-3	150
1-4	200
1-5	250
1-6	300
1-7	350
1-8	400
1-9	450
1-10	500
1-11	500
1-12	500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

4. The emissions of SO₂ from this emissions unit while burning No.2 fuel oil shall not exceed 1.57 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

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. The permittee shall maintain monthly records of the following information:

- a. the total hours of operation of the emissions unit while burning No. 2 fuel oil for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours while burning No.2 fuel oil.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours while burning No.2 fuel oil for each calendar month.

D. Reporting Requirements

1. Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and,

- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to the Cleveland Division of Air Quality (Cleveland DAQ) and to:

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

2. The permittee shall notify the Cleveland DAQ in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
3. The permittee shall notify the Cleveland DAQ 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 term C.1. above.
4. The notifications identified in terms D.2 and D.3 shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the deviation occurs.
5. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month limitation on the hours of operation while burning No.2 fuel oil; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
6. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month emission limitation for SO₂. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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):
10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method(s):
Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.,
 - b. Emission Limitation(s):
0.02 lb/mmBtu of particulate emissions

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs PE/10³ gal emission factor (taken from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98)) into lbs PE/mmBtu by dividing by 140 mmBtu/10³ 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.

- c. Emission Limitation(s):
0.50 lb/mmBtu, of SO₂ emissions

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in term C.1.

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 6.

- d. Emission Limitation(s):
1.57 TPY of SO₂ emissions as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the average lb SO₂/mmBtu emission rate by the maximum heat input of the emissions unit, the annual operating hours of the emissions unit while burning No. 2 fuel oil and then dividing by 2000 lbs/ton.

F. Miscellaneous Requirements

- 1. The potential to emit for NO_x, OC, PE and CO emissions was determined as follows:

Natural Gas

NO_x

Potential to Emit (PTE)

$$\begin{aligned}
 &*AP-42 \text{ Factor} = 100 \text{ lbs NO}_x/\text{mmcf} \\
 &(0.012 \text{ mmcf/hr}) * (100 \text{ lbs NO}_x/\text{mmcf}) = 1.2 \text{ lb NO}_x/\text{hr} \\
 &(1.2 \text{ lb NO}_x/\text{hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 5.25 \text{ TPY NO}_x
 \end{aligned}$$

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Facility ID: 1318004311
Emissions Unit ID: B024

CO

Potential to Emit (PTE)

**AP-42 Factor = 84 lbs CO/mmcf*

$(0.012 \text{ mmcf/hr}) * (84 \text{ lbs CO/mmcf}) = 1.00 \text{ lbs CO/hr}$

$(1.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 4.38 \text{ TPY CO}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 11 lbs OC/mmcf*

$(0.012 \text{ mmcf/hr}) * (11 \text{ lbs OC/mmcf}) = 0.57 \text{ lbs CO/hr}$

$(0.57 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 2.49 \text{ TPY CO}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 7.6 lbs PE/mmcf*

$(0.012 \text{ mmcf/hr}) * (7.6 \text{ lbs PE/mmcf}) = 0.09 \text{ lb PE/hr}$

$(0.09 \text{ lb/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 0.40 \text{ TPY PE}$

No.2 Fuel oil

NOx

Potential to Emit (PTE)

**AP-42 Factor = 20 lb/1000 gal*

$(20 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 1.78 \text{ lbs/hr}$

$(1.78 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 7.79 \text{ TPY}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 5 lb/1000 gal*

$(5 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.45 \text{ lbs/hr}$

$(0.45 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 1.97 \text{ TPY}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 0.556 lb/1000 gal*

$(0.556 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.05 \text{ lb/hr}$

$(0.05 \text{ lb/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 0.22 \text{ TPY}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 2.0 lb/1000 gal*

$(2.0 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal}/\text{hr}) = 0.17 \text{ lb}/\text{hr}$

$(0.17 \text{ lb}/\text{hr}) * (8760 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 0.74 \text{ TPY}$

* U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Sections 1.3 (9/98) and 1.4 (7/98)

2. Based on the annual operating hours restriction for this emissions unit of 500 hours per year while burning No.2 fuel oil, the potential to emit value for SO₂ emissions is reduced to less than 10 TPY.

$(12.55 \text{ mmbtu}/\text{hr}) * (0.5 \text{ lb}/\text{mmbtu}) = 6.28 \text{ lbs}/\text{hr}$

$(6.28 \text{ lbs}/\text{hr}) * (500 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 1.57 \text{ TPY}$

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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 - (B025) - 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.57 TPY as a rolling, 12-month summation. This emissions unit shall not operate more than 500 hours per year while burning No. 2 fuel oil as a rolling, 12-month summation.
OAC rule 3745-31-05(A)(3)(a)(ii)	See term A.2.d and A.2.e below.
OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 40 CFR Part 60 Subpart Dc.
OAC rule 3745-17-10(B)(1)	0.02 lb of particulate emissions per mmBtu
OAC rule 3745-18-06(D)	When burning No. 2 fuel oil, the emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to 40 CFR Part 60 Subpart Dc .
40 CFR Part 60 Subpart Dc	0.5 lb of SO ₂ emissions per mmBtu when burning No. 2 fuel oil. Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
OAC rule 3745-21-08(B)	See term A.2.c.

2. Additional Terms and Conditions

- 2.a** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- 2.b** The lb/mmBtu actual heat input and tons per year emission limitations, except for SO₂, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- 2.c** The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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 U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions 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.

- 2.d** The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled NO_x, OC, PE, and CO emissions from this emissions unit since the potential to emit for NO_x, OC, PE, and CO are each less than ten tons per year.
- 2.e** Permit to Install 13-04759 for this emissions unit takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for SO₂ emissions:
 - a.** The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year.

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 per cent sulfur.

3. The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	50
1-2	100
1-3	150
1-4	200
1-5	250
1-6	300
1-7	350
1-8	400
1-9	450
1-10	500
1-11	500
1-12	500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

4. The emissions of SO₂ from this emissions unit while burning No.2 fuel oil shall not exceed 1.57 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

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. The permittee shall maintain monthly records of the following information:

- a. the total hours of operation of the emissions unit while burning No. 2 fuel oil for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours while burning No.2 fuel oil.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours while burning No.2 fuel oil for each calendar month.

D. Reporting Requirements

- 1. Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
 - a. construction date (no later than 30 days after such date);
 - b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. actual start-up date (within 15 days after such date); and,

- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to the Cleveland Division of Air Quality (Cleveland DAQ) and to:

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

- 2. The permittee shall notify the Cleveland DAQ in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
- 3. The permittee shall notify the Cleveland DAQ 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 term C.1. above.
- 4. The notifications identified in terms D.2 and D.3 shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the deviation occurs.
- 5. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month limitation on the hours of operation while burning No.2 fuel oil; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
- 6. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month emission limitation for SO₂. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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):
10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

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

- b. Emission Limitation(s):
0.02 lb/mmBtu of particulate emissions

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs PE/10³ gal emission factor (taken from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98)) into lbs PE/mmBtu by dividing by 140 mmBtu/10³ 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.

- c. Emission Limitation(s):
0.50 lb/mmBtu, of SO₂ emissions

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in term C.1.

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 6.

- d. Emission Limitation(s):
1.57 TPY of SO₂ emissions as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the average lb SO₂/mmBtu emission rate by the maximum heat input of the emissions unit, the annual operating hours of the emissions unit while burning No. 2 fuel oil and then dividing by 2000 lbs/ton.

F. Miscellaneous Requirements

1. The potential to emit for NO_x, OC, PE and CO emissions was determined as follows:

Natural Gas

NO_x

Potential to Emit (PTE)

**AP-42 Factor = 100 lbs NOx/mmcf*

$(0.012 \text{ mmcf/hr}) * (100 \text{ lbs NOx/mmcf}) = 1.2 \text{ lb NOx/hr}$

$(1.2 \text{ lb NOx/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 5.25 \text{ TPY NOx}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 84 lbs CO/mmcf*

$(0.012 \text{ mmcf/hr}) * (84 \text{ lbs CO/mmcf}) = 1.00 \text{ lbs CO/hr}$

$(1.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 4.38 \text{ TPY CO}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 11 lbs OC/mmcf*

$(0.012 \text{ mmcf/hr}) * (11 \text{ lbs OC/mmcf}) = 0.57 \text{ lbs CO/hr}$

$(0.57 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 2.49 \text{ TPY CO}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 7.6 lbs PE/mmcf*

$(0.012 \text{ mmcf/hr}) * (7.6 \text{ lbs PE/mmcf}) = 0.09 \text{ lb PE/hr}$

$(0.09 \text{ lb/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 0.40 \text{ TPY PE}$

No.2 Fuel oil

NOx

Potential to Emit (PTE)

**AP-42 Factor = 20 lb/1000 gal*

$(20 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 1.78 \text{ lbs/hr}$

$(1.78 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 7.79 \text{ TPY}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 5 lb/1000 gal*

$(5 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.45 \text{ lbs/hr}$

$(0.45 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 1.97 \text{ TPY}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 0.556 lb/1000 gal*

$(0.556 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.05 \text{ lb/hr}$

$(0.05 \text{ lb/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 0.22 \text{ TPY}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 2.0 lb/1000 gal*

$(2.0 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal}/\text{hr}) = 0.17 \text{ lb}/\text{hr}$

$(0.17 \text{ lb}/\text{hr}) * (8760 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 0.74 \text{ TPY}$

* U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Sections 1.3 (9/98) and 1.4 (7/98)

2. Based on the annual operating hours restriction for this emissions unit of 500 hours per year while burning No.2 fuel oil, the potential to emit value for SO2 emissions is reduced to less than 10 TPY.

$(12.55 \text{ mmbtu}/\text{hr}) * (0.5 \text{ lb}/\text{mmbtu}) = 6.28 \text{ lbs}/\text{hr}$

$(6.28 \text{ lbs}/\text{hr}) * (500 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 1.57 \text{ TPY}$

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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 - (B026) - 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.57 TPY as a rolling, 12-month summation. This emissions unit shall not operate more than 500 hours per year while burning No. 2 fuel oil as a rolling, 12-month summation.
OAC rule 3745-31-05(A)(3)(a)(ii)	See term A.2.d and A.2.e below.
OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 40 CFR Part 60 Subpart Dc.
OAC rule 3745-17-10(B)(1)	0.02 lb of particulate emissions per mmBtu
OAC rule 3745-18-06(D)	When burning No. 2 fuel oil, the emissions limitation specified by this rule is less stringent that the emissions limitation established pursuant to 40 CFR Part 60 Subpart Dc .
40 CFR Part 60 Subpart Dc	0.5 lb of SO ₂ emissions per mmBtu when burning No. 2 fuel oil. Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
OAC rule 3745-21-08(B)	See term A.2.c.

2. Additional Terms and Conditions

- 2.a** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- 2.b** The lb/mmBtu actual heat input and tons per year emission limitations, except for SO₂, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- 2.c** The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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 U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions 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.

- 2.d** The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled NO_x, OC, PE, and CO emissions from this emissions unit since the potential to emit for NO_x, OC, PE, and CO are each less than ten tons per year.
- 2.e** Permit to Install 13-04759 for this emissions unit takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for SO₂ emissions:
 - a.** The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year.

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 per cent sulfur.

3. The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	50
1-2	100
1-3	150
1-4	200
1-5	250
1-6	300
1-7	350
1-8	400
1-9	450
1-10	500
1-11	500
1-12	500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

4. The emissions of SO₂ from this emissions unit while burning No.2 fuel oil shall not exceed 1.57 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

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. The permittee shall maintain monthly records of the following information:

- a. the total hours of operation of the emissions unit while burning No. 2 fuel oil for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours while burning No.2 fuel oil.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours while burning No.2 fuel oil for each calendar month.

D. Reporting Requirements

- 1. Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
 - a. construction date (no later than 30 days after such date);
 - b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. actual start-up date (within 15 days after such date); and,

- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to the Cleveland Division of Air Quality (Cleveland DAQ) and to:

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

2. The permittee shall notify the Cleveland DAQ in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
3. The permittee shall notify the Cleveland DAQ 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 term C.1. above.
4. The notifications identified in terms D.2 and D.3 shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the deviation occurs.
5. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month limitation on the hours of operation while burning No.2 fuel oil; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
6. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month emission limitation for SO₂. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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):
10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

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

- b. Emission Limitation(s):
0.02 lb/mmBtu of particulate emissions

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs PE/10³ gal emission factor (taken from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98)) into lbs PE/mmBtu by dividing by 140 mmBtu/10³ 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.

- c. Emission Limitation(s):
0.50 lb/mmBtu, of SO₂ emissions

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in term C.1.

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 6.

- d. Emission Limitation(s):
1.57 TPY of SO₂ emissions as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the average lb SO₂/mmBtu emission rate by the maximum heat input of the emissions unit, the annual operating hours of the emissions unit while burning No. 2 fuel oil and then dividing by 2000 lbs/ton.

F. Miscellaneous Requirements

1. The potential to emit for NO_x, OC, PE and CO emissions was determined as follows:

Natural Gas

NO_x

Potential to Emit (PTE)

**AP-42 Factor = 100 lbs NOx/mmcf*

$(0.012 \text{ mmcf/hr}) * (100 \text{ lbs NOx/mmcf}) = 1.2 \text{ lb NOx/hr}$

$(1.2 \text{ lb NOx/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 5.25 \text{ TPY NOx}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 84 lbs CO/mmcf*

$(0.012 \text{ mmcf/hr}) * (84 \text{ lbs CO/mmcf}) = 1.00 \text{ lbs CO/hr}$

$(1.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 4.38 \text{ TPY CO}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 11 lbs OC/mmcf*

$(0.012 \text{ mmcf/hr}) * (11 \text{ lbs OC/mmcf}) = 0.57 \text{ lbs CO/hr}$

$(0.57 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 2.49 \text{ TPY CO}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 7.6 lbs PE/mmcf*

$(0.012 \text{ mmcf/hr}) * (7.6 \text{ lbs PE/mmcf}) = 0.09 \text{ lb PE/hr}$

$(0.09 \text{ lb/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 0.40 \text{ TPY PE}$

No.2 Fuel oil

NOx

Potential to Emit (PTE)

**AP-42 Factor = 20 lb/1000 gal*

$(20 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 1.78 \text{ lbs/hr}$

$(1.78 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 7.79 \text{ TPY}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 5 lb/1000 gal*

$(5 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.45 \text{ lbs/hr}$

$(0.45 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 1.97 \text{ TPY}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 0.556 lb/1000 gal*

$(0.556 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.05 \text{ lb/hr}$

$(0.05 \text{ lb/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 0.22 \text{ TPY}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 2.0 lb/1000 gal*

$(2.0 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal}/\text{hr}) = 0.17 \text{ lb}/\text{hr}$

$(0.17 \text{ lb}/\text{hr}) * (8760 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 0.74 \text{ TPY}$

* U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Sections 1.3 (9/98) and 1.4 (7/98)

2. Based on the annual operating hours restriction for this emissions unit of 500 hours per year while burning No.2 fuel oil, the potential to emit value for SO2 emissions is reduced to less than 10 TPY.

$(12.55 \text{ mmbtu}/\text{hr}) * (0.5 \text{ lb}/\text{mmbtu}) = 6.28 \text{ lbs}/\text{hr}$

$(6.28 \text{ lbs}/\text{hr}) * (500 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 1.57 \text{ TPY}$

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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 - (B027) - 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.57 TPY as a rolling, 12-month summation. This emissions unit shall not operate more than 500 hours per year while burning No. 2 fuel oil as a rolling, 12-month summation.
OAC rule 3745-31-05(A)(3)(a)(ii)	See term A.2.d and A.2.e below.
OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 40 CFR Part 60 Subpart Dc.
OAC rule 3745-17-10(B)(1)	0.02 lb of particulate emissions per mmBtu
OAC rule 3745-18-06(D)	When burning No. 2 fuel oil, the emissions limitation specified by this rule is less stringent that the emissions limitation established pursuant to 40 CFR Part 60 Subpart Dc .
40 CFR Part 60 Subpart Dc	0.5 lb of SO ₂ emissions per mmBtu when burning No. 2 fuel oil. Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
OAC rule 3745-21-08(B)	See term A.2.c.

2. Additional Terms and Conditions

- 2.a** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- 2.b** The lb/mmBtu actual heat input and tons per year emission limitations, except for SO₂, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- 2.c** The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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 U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions 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.

- 2.d** The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled NO_x, OC, PE, and CO emissions from this emissions unit since the potential to emit for NO_x, OC, PE, and CO are each less than ten tons per year.
- 2.e** Permit to Install 13-04759 for this emissions unit takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for SO₂ emissions:
 - a.** The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year.

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 per cent sulfur.

3. The maximum annual operating hours for this emissions unit while burning No.2 fuel oil shall not exceed 500 hours/year, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	50
1-2	100
1-3	150
1-4	200
1-5	250
1-6	300
1-7	350
1-8	400
1-9	450
1-10	500
1-11	500
1-12	500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

4. The emissions of SO₂ from this emissions unit while burning No.2 fuel oil shall not exceed 1.57 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

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. The permittee shall maintain monthly records of the following information:

- a. the total hours of operation of the emissions unit while burning No. 2 fuel oil for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours while burning No.2 fuel oil.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours while burning No.2 fuel oil for each calendar month.

D. Reporting Requirements

- 1. Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
 - a. construction date (no later than 30 days after such date);
 - b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to the Cleveland Division of Air Quality (Cleveland DAQ) and to:

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

2. The permittee shall notify the Cleveland DAQ in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil.
3. The permittee shall notify the Cleveland DAQ 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 term C.1. above.
4. The notifications identified in terms D.2 and D.3 shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the deviation occurs.
5. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month limitation on the hours of operation while burning No.2 fuel oil; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
6. The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month emission limitation for SO₂. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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):
10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

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

- b. Emission Limitation(s):
0.02 lb/mmBtu of particulate emissions

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs PE/10³ gal emission factor (taken from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98)) into lbs PE/mmBtu by dividing by 140 mmBtu/10³ 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.

- c. Emission Limitation(s):
0.50 lb/mmBtu, of SO₂ emissions

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in term C.1.

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 6.

- d. Emission Limitation(s):
1.57 TPY of SO₂ emissions as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the average lb SO₂/mmBtu emission rate by the maximum heat input of the emissions unit, the annual operating hours of the emissions unit while burning No. 2 fuel oil and then dividing by 2000 lbs/ton.

F. Miscellaneous Requirements

1. The potential to emit for NO_x, OC, PE and CO emissions was determined as follows:

Natural Gas

NO_x

Potential to Emit (PTE)

**AP-42 Factor = 100 lbs NOx/mmcf*

$(0.012 \text{ mmcf/hr}) * (100 \text{ lbs NOx/mmcf}) = 1.2 \text{ lb NOx/hr}$

$(1.2 \text{ lb NOx/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 5.25 \text{ TPY NOx}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 84 lbs CO/mmcf*

$(0.012 \text{ mmcf/hr}) * (84 \text{ lbs CO/mmcf}) = 1.00 \text{ lbs CO/hr}$

$(1.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 4.38 \text{ TPY CO}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 11 lbs OC/mmcf*

$(0.012 \text{ mmcf/hr}) * (11 \text{ lbs OC/mmcf}) = 0.57 \text{ lbs CO/hr}$

$(0.57 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 2.49 \text{ TPY CO}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 7.6 lbs PE/mmcf*

$(0.012 \text{ mmcf/hr}) * (7.6 \text{ lbs PE/mmcf}) = 0.09 \text{ lb PE/hr}$

$(0.09 \text{ lb/hr}) * (8760 \text{ hrs/yr}) * (\text{ton}/2000 \text{ lbs}) = 0.40 \text{ TPY PE}$

No.2 Fuel oil

NOx

Potential to Emit (PTE)

**AP-42 Factor = 20 lb/1000 gal*

$(20 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 1.78 \text{ lbs/hr}$

$(1.78 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 7.79 \text{ TPY}$

CO

Potential to Emit (PTE)

**AP-42 Factor = 5 lb/1000 gal*

$(5 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.45 \text{ lbs/hr}$

$(0.45 \text{ lbs/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 1.97 \text{ TPY}$

OC

Potential to Emit (PTE)

**AP-42 Factor = 0.556 lb/1000 gal*

$(0.556 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal/hr}) = 0.05 \text{ lb/hr}$

$(0.05 \text{ lb/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) = 0.22 \text{ TPY}$

PE

Potential to Emit (PTE)

**AP-42 Factor = 2.0 lb/1000 gal*

$(2.0 \text{ lbs}/1000 \text{ gal}) / (89 \text{ gal}/\text{hr}) = 0.17 \text{ lb}/\text{hr}$

$(0.17 \text{ lb}/\text{hr}) * (8760 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 0.74 \text{ TPY}$

* U.S. EPA reference document AP-42, 5th edition, Compilation of Air Pollution Emission Factors, Sections 1.3 (9/98) and 1.4 (7/98)

2. Based on the annual operating hours restriction for this emissions unit of 500 hours per year while burning No.2 fuel oil, the potential to emit value for SO2 emissions is reduced to less than 10 TPY.

$(12.55 \text{ mmbtu}/\text{hr}) * (0.5 \text{ lb}/\text{mmbtu}) = 6.28 \text{ lbs}/\text{hr}$

$(6.28 \text{ lbs}/\text{hr}) * (500 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) = 1.57 \text{ TPY}$

SIC CODE 8062 SCC CODE _____ EMISSIONS UNIT ID B025

EMISSIONS UNIT DESCRIPTION 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

DATE INSTALLED _____

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.09 lb/hr	0.40 TPY	0.02 lb/mmBtu	1.09 TPY
PM ₁₀					
Sulfur Dioxide	Attainment	6.28 lbs/hr	1.57 TPY	0.5 lb/mmBtu for No.2 oil	1.57 TPY
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

BAT does not apply since emissions of each pollutant are less than 10 tpy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 8062 SCC CODE _____ EMISSIONS UNIT ID B026

EMISSIONS UNIT DESCRIPTION 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

DATE INSTALLED _____

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.09 lb/hr	0.40 TPY	0.02 lb/mmBtu	1.09 TPY
PM ₁₀					
Sulfur Dioxide	Attainment	6.28 lbs/hr	1.57 TPY	0.5 lb/mmBtu for No.2 oil	1.57 TPY
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

BAT does not apply since emissions of each pollutant are less than 10 tpy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____

Cleveland Clinic Foundation
PTI Application: 13-04759
Issued: 6/13/2008

Facility ID: 1318004311

SIC CODE 8062 SCC CODE _____ EMISSIONS UNIT ID B027

EMISSIONS UNIT DESCRIPTION 12.55 mmBtu/hr Natural Gas//N0.2 fuel oil boiler

DATE INSTALLED _____

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.09 lb/hr	0.40 TPY	0.02 lb/mmBtu	1.09 TPY
PM ₁₀					
Sulfur Dioxide	Attainment	6.28 lbs/hr	1.57 TPY	0.5 lb/mmBtu for No.2 oil	1.57 TPY
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

BAT does not apply since emissions of each pollutant are less than 10 tpy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____