

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **13-04336**

A. Source Description

The Cleveland Clinic Foundation (CCF) is a state-of-the-art medical complex located in Cleveland, Ohio. It is comprised of many buildings and "subfacilities". In CY-2000, CCF submitted an extensive application for a Federally Enforceable State Operating Permit (FESOP) to establish minor source status with regards to Title V, non-attainment NSR, and PSD programs. Facility operations at this site currently include: multiple small and large Steam Generating Units (B001, B003-B009, B101-B102, B301-B303, B402, and B404); two incinerators (N001 and N201); and other insignificant/deminimus emissions units and activities. A recent inventory of actual emissions demonstrates that the facility has continued compliance below the major source thresholds. CCF requested to install an additional boiler to meet expansion needs at the facility. The proposed boiler (designated by the Ohio EPA identification number B009) is a 121.2 mm Btu/hr natural gas fired boiler, with a no. 2 fuel oil backup, used for space heating.

B. Facility Emissions and Attainment Status

CCF is potentially a major source facility due to the theoretical PTE figures (> 100 tpy for SO₂, NO_x, PM-10, VOC, and CO and >10 tpy single HAP, Hexane). The facility has applied for federally enforceable limitations through a pending FESOP application to establish minor source status with regards to Title V, non-attainment NSR, and PSD programs. The limitations outlined in this permit will not adversely impact the pending FESOP approach. Cuyahoga County is classified as "non-attainment" for ozone (8-hour standard).

C. Source Emissions

The facility has requested a Federally Enforceable Permit to Install (Synthetic Minor) for this emissions unit to avoid Title V permitting and the non-attainment NSR requirements. The allowable limits are based on fuel usage restrictions for both natural gas (780,670,588 scf/rolling, 12-month period) and No. 2 fuel oil (284,387 gallons/rolling, 12-month period) consumption. In addition, the proposed emission unit will be equipped with "low-NO_x burners" that will result in emissions of no more than 0.0396 lbs NO_x/mm Btu heat input when firing natural gas and no more than 0.132 lb NO_x/mm Btu when firing No. 2 fuel oil. These operational restrictions result in the following:

When firing natural gas, the annual emissions resulting from the operation of this emission unit shall not exceed the following limits, based on a rolling, 12-month summation of emissions:

PE/PE-10	2.97 tons
NO _x	15.77 tons
CO	32.79 tons
VOC	2.15 tons
SO ₂	0.23 tons

When firing No. 2 fuel oil, the annual emissions resulting from the operation of this emission unit shall not exceed the following limits, based on a rolling, 12-month summation of emissions:

PE/PE-10	0.28 tons
NO _x	2.63 tons
CO	0.71 tons
VOC	0.03 tons
SO ₂	4.04 tons

D. Conclusion

The Cleveland Local Air Agency (CLAA) recommends approval of this permit because a review of the historical facility data (emissions inventory summary from 2000 to the present time) verifies that the actual facility emissions are significantly lower than the theoretical potential emissions. CLAA is also confident that the operational work practices established by the facility will ensure compliance with the proposed FESOP Strategy even with the addition of this emissions unit.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 13-04336

Fac ID: 1318004311

DATE: 9/16/2004

Cleveland Clinic Foundation
Mike McMichael
7680 Hub Parkway
Valley View, OH 44125

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1000** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

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

CC: USEPA

CLAA

PA

CUYAHOGA COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 13-04336 FOR AN AIR CONTAMINANT SOURCE FOR
Cleveland Clinic Foundation**

On 9/16/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Cleveland Clinic Foundation**, located at **9500 Euclid Avenue, Cleveland, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-04336:

New 121.2 MMBtu/hr natural gas-fired boiler with No. 2 fuel oil as backup fuel --.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

David Hearne, Cleveland City Health Department, Division of the Environment, 1925 St. Clair Avenue,
Cleveland, OH 44114 [(216)664-2324]



**Permit To Install
Terms and Conditions**

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

DRAFT PERMIT TO INSTALL 13-04336

Application Number: 13-04336
Facility ID: 1318004311
Permit Fee: **To be entered upon final issuance**
Name of Facility: Cleveland Clinic Foundation
Person to Contact: Mike McMichael
Address: 7680 Hub Parkway
Valley View, OH 44125

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

Description of proposed emissions unit(s):
New 121.2 MMBtu/hr natural gas-fired boiler with No. 2 fuel oil as backup fuel --.

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

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 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

Cleveland Clinic Foundation

Facility ID: 1318004311

PTI Application: 13-04336

Issued: To be entered upon final issuance

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

Cleveland Clinic Foundation

PTI Application: 13-04336

Issued: To be entered upon final issuance

lead to such sanctions

Facility ID: 1318004311

Cleveland Clinic Foundation

Facility ID: 1318004311

PTI Application: 13-04336

Issued: To be entered upon final issuance

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

Cleveland Clinic Foundation
PTI Application: 13-04336

Facility ID: 1318004311

Issued: To be entered upon final issuance

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/PM-10	3.25
NO _x	18.4
CO	33.5
VOC	2.18
SO ₂	4.27

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	<u>Applicable Rules/Requirements</u>	OAC Rule 3745-18-06(D)
B009 - 121.2 mmBtu/hr Natural Gas fired boiler with No. 2 Fuel Oil as a back-up fuel.	OAC Rule 3745-31-05(A)(3)	OAC Rule 3745-21-08(B)
		OAC Rule 3745-23-06(B)
		OAC Rule 3745-31-05(C) Synthetic Minor to avoid NSR, Title V
		40 CFR Part 60 Subpart Db including:
		40 CFR 60.42b (j)
		40 CFR 60.43b (f)
		40 CFR 60.44b (a)
	OAC Rule 3745-17-07(A)	
	OAC Rule 3745-17-10(B)(1)	

**Clevel
PTI A**

Emissions Unit ID: **B009**

Issued: To be entered upon final issuance

<u>Applicable Emissions Limitations/Control Measures</u>	3745-31-05(A)(3) and 40 CFR Part 60, Subpart Db.
<p>From burning natural gas: 4.80 lbs/hr of NO_x emissions 0.90 lb/hr of particulate emissions, PE/PM-10 9.98 lbs/hr of CO emissions 0.65 lb/hr of VOC emissions 0.07 lb/hr of SO₂ emissions</p>	<p>See section A.2.c below. See section A.2.c below. See section A.2.a, A.2.b., B.2., and B.3. below</p>
<p>From burning No. 2 fuel oil: 16.0 lbs/hr of NO_x emissions 1.73 lbs/hr of particulate emissions, PE/PM-10 4.33 lbs/hr of CO emissions 0.17 lb/hr of VOC emissions 24.59 lbs/hr of SO₂ emissions</p>	<p>See section B.2.a. below for use of very low sulfur oil See section A.2.e. below for opacity limit when burning fuel oil See section B.4. through B.5. below</p>
<p>The requirements established pursuant to this rule also include compliance with the requirements of OAC Rule(s) 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), 3745-31-05(C), and 40 CFR Part 60, Subpart Db.</p>	<p>The NO_x emission limitation specified in this rule is less stringent than the limitation specified in OAC rule 3745-31-05(A)(3)</p>
<p>See section A.2.d. below for opacity limit when burning natural gas.</p>	
<p>The particulate emission limitation specified in this rule is less stringent than the limitation specified in OAC rule 3745-31-05(A)(3).</p>	
<p>The sulfur dioxide emission limitation specified in this rule is less stringent than the limitation specified in OAC rule</p>	

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** When firing natural gas, the annual emissions resulting from the operation of this emission unit shall not exceed the following limits, based on a rolling, 12-month summation of emissions:

PM-10	2.97 tons
NO _x	15.77 tons
CO	32.79 tons
VOC	2.15 tons
SO ₂	0.23 tons

- 2.b** When firing No. 2 fuel oil, the annual emissions resulting from the operation of this emission unit shall not exceed the following limits, based on a rolling, 12-month summation of emissions:

PM-10	0.28 tons
NO _x	2.63 tons
CO	0.71 tons
VOC	0.03 tons
SO ₂	4.04 tons

- 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" and "latest available control techniques and operating practices" required pursuant to OAC Rules 3745-21-08 and 3745-23-06, respectively.
- 2.d** When burning natural gas, visible particulate emissions shall not exceed 20% opacity, as a six minute average, except as provided by rule.
- 2.e** When burning No. 2 fuel oil, visible particulate emissions shall not exceed 20% opacity, as a six minute average, except for one 6-minute period per hour of not more than 27% opacity.

B. Operational Restrictions

1. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emission unit.
2. The following restrictions apply when burning No. 2 fuel oil:
 - a. The quality of the No. 2 fuel oil burned in this emissions unit shall meet, on an "as

Emissions Unit ID: **B009**

received" basis, a sulfur content which is equal to or less than 0.5 percent sulfur, by weight.

- b. The maximum annual No. 2 fuel oil usage for this emission unit shall not exceed 284,387 gallons, based on a rolling, 12-month summation of the annual usage.
- c. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the annual No. 2 fuel oil usage limitations for this emission unit, as specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable No. 2 Fuel Oil Usage (gallons)</u>
1	23,699
1-2	47,398
1-3	71,097
1-4	94,796
1-5	118,495
1-6	142,194
1-7	165,893
1-8	189,592
1-9	213,291
1-10	236,990
1-11	260,689
1-12	284,387

After the first 12 calendar months of operation following the issuance of this permit, compliance with the usage limitation for this emission unit shall be based on a rolling, 12-month summation of the annual usage.

- 3. The following restrictions apply when burning natural gas:
 - a. The maximum annual natural gas usage for this emission unit shall not exceed 781.2 mm scf/yr, based on a rolling, 12-month summation of the annual usage.
 - b. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the annual natural gas usage limitations for this emission unit, as specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Natural Gas Usage (mm scf)</u>
1	65.1
1-2	130.2

**Clevel
PTI A**

Emissions Unit ID: **B009**

Issued: To be entered upon final issuance

1-3	195.3
1-4	260.4
1-5	325.5
1-6	390.6
1-7	455.7
1-8	520.8
1-9	585.9
1-10	651.0
1-11	716.1
1-12	781.2

After the first 12 calendar months of operation following the issuance of this permit, compliance with the usage limitation for this emission unit shall be based on a rolling, 12-month summation of the annual usage.

4. The permittee shall operate low NOx burners at all times this emission unit is in operation.
5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions at all times this emission unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. 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 emission unit.
2. The quality of the No. 2 fuel oil burned in this emission unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section B.2.a above. The permittee may use Alternative 1 or Alternative 2 identified below.

a. Alternative 1

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

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 lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

- b. 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.
3. The permittee shall maintain monthly records of the following information for this emission unit:
 - a. the natural gas consumption (mm scf),
 - b. the No. 2 fuel oil consumption (gallons),
 - c. the rolling, 12-month summation of the natural gas consumption figures (mm scf),
 - d. the rolling, 12-month summation of the No. 2 fuel oil consumption figures (gallons),
 4. The permittee shall perform weekly checks when the emission unit is in operation, and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

Issued: To be entered upon final issuance

In lieu of the weekly visible emissions checks, the permittee may install, operate, and maintain equipment to continuously monitor and record the opacity from this emission unit in accordance with 40 CFR Part 60.13.

5. During each day that No. 2 fuel oil is combusted in this emission unit, the permittee shall perform a 6-minute opacity observation consistent with USEPA Method 9. If the average opacity exceeds 10 percent, the observer must collect two additional 6-minute sets of visible emission readings. Records of the date and time of each observation and the results of each observation shall be maintained. In lieu of the daily opacity checks, the permittee may install, operate, and maintain equipment to continuously monitor and record the opacity from this emission unit in accordance with 40 CFR Part 60.13.
6. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emission unit, in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain on-site documentation from the Cleveland Division of Air Quality (Cleveland DAQ) that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 60. Proof of certification shall be made available upon request.

The permittee shall maintain records of all data obtained by the continuous nitrogen oxides monitoring system including, but not limited to, emissions of nitrogen oxides in lb/mmBtu actual heat input on an hourly average basis, emissions of nitrogen oxides in lb/mmBtu on a rolling, 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
8. Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.
9. Each record of any monitoring data, testing data, and support information required pursuant to

Emissions Unit ID: **B009**

this permit shall be retained for a period of 5 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 the permit. Such records may be maintained in computerized form.

10. Per 40 CFR 60.49b(r), the permittee shall obtain and maintain fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in 40 CFR 60.41b; however, the oil need not meet the fuel nitrogen content in this definition.

D. Reporting Requirements

1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing that the rolling 12-month summation of No. 2 fuel oil usage exceeded 284,387 gallons for this emission unit. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
2. The permittee shall notify the Cleveland DAQ in writing of any monthly record showing that the rolling 12-month summation of natural gas usage exceeded 781.2 mm scf for this emission unit. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
3. The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Cleveland DAQ documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all 30-day average nitrogen oxides values in excess of the applicable nitrogen oxides emissions rate (lb/mmBtu)

The report shall also document any continuous nitrogen oxides monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective

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action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emission unit. The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
5. The permittee shall notify the Cleveland DAQ in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section C.2. above. The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the deviation occurs.
6. The permittee submit deviation (excursion) reports that identify each day during which the opacity limitation during No. 2 fuel oil combustion for this emissions unit has been exceeded. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
7. The permittee shall submit an annual report that includes:
 - a. the total particulate, sulfur dioxide, organic compound, nitrogen oxides, and carbon monoxide emissions for this emission unit;

- b. the total No. 2 fuel oil usage (gallons) for this emission unit; and
- c. the total natural gas usage (mm scf) for this emission unit.

This report shall be submitted to the Cleveland DAQ by April 1 of each year and shall cover the preceding calendar year.

- 8. The permittee shall submit an annual report that includes the total PM-10, sulfur dioxide, volatile organic compound, nitrogen oxides, carbon monoxide, individual Hazardous Air Pollutant (HAP), and combined HAP emissions for the facility. This report shall be submitted to the Cleveland DAQ by April 1 of each year and shall cover the preceding calendar year.
- 9. The permittee shall submit quarterly reports certifying that only very low sulfur oil meeting the definition for distillate oil (except nitrogen content) in 40 CFR 60.41B was combusted during the preceding quarter.

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:
4.80 lb/hr of NO_x emissions when burning natural gas

Applicable Compliance Method:

Compliance with the emission limit shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 operating days as collected by the continuous emissions monitoring system (sections C.3., and C.6. through C.7.)

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

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- b. Emission Limitation:
0.9 lb/hr of PM-10 emissions when burning natural gas

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly natural gas usage for this emission unit (118,824 scf/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for PM-10 (7.6 lbs/mm scf).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- c. Emission Limitation:
9.98 lb/hr of CO emissions when burning natural gas

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly natural gas usage for this emission unit (118,824 scf/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-1 (7/98) emission factor for CO (84 lbs/mm scf).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- d. Emission Limitation:
0.65 lb/hr of VOC emissions when burning natural gas

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly natural gas usage for this emission unit (118,824 scf/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for VOC (5.5 lbs/mm scf).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- e. Emission Limitation:
0.07 lb/hr of SO₂ emissions when burning natural gas

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly natural gas usage for this emission unit (118,824 scf/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for SO₂ (0.6 lbs/mm scf).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- f. Emission Limitation:
16.0 lb/hr of NO_x emissions when burning No. 2 fuel oil

Applicable Compliance Method:

Compliance with the emission limit shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 operating days as collected by the continuous emissions monitoring system (sections C.3., and C.6. through C.7.)

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- g. Emission Limitation:
1.73 lb/hr of PM-10 emissions when burning No. 2 fuel oil

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly No. 2 fuel oil usage for this emission unit (866 gallons/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for PM-10 (2 lbs/10³ gallons).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

24

Clevel

PTI A

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Emissions Unit ID: **B009**

- h. Emission Limitation:
4.33 lb/hr of CO emissions when burning No. 2 fuel oil

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Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly No. 2 fuel oil usage for this emission unit (866 gallons/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-1 (7/98) emission factor for CO (5 lbs/10³ gallons).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- i. Emission Limitation:
0.17 lb/hr of VOC emissions when burning No. 2 fuel oil

Applicable Compliance Method:

Compliance with the hourly emission limit shall be determined by multiplying the maximum hourly No. 2 fuel oil usage for this each emission unit (866 gallons/hr) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for VOC (2.0 lbs/10³ gallons).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- j. Emission Limitation:
24.59 lb/hr of SO₂ emissions when burning No. 2 fuel oil

Applicable Compliance Method:

When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation as required in Section C. (Monitoring and Recordkeeping #2) above.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternate U.S. EPA approved test methods may be used with prior approval from the Cleveland Division of Air Quality (Cleveland DAQ).

- k. Emission Limitation:
15.77 tons NO_x per rolling, 12-month summation of emissions when burning natural gas

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational natural gas usage limitation (781.2 mm scf/rolling, 12-month summation) by the average heat content of the natural gas (may assume 1,020 Btu / scf in the absence of actual data) and then multiplying by the most recent performance test emissions factor (currently 0.0396 lbs NO_x / mm Btu for natural gas combustion per manufacturers data , NATCOM Emissions-Reduction Equipment Summary Sheet) and then dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- l. Emission Limitation:
 2.97 tons PM-10 per rolling, 12-month summation of emissions when burning natural gas

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational natural gas usage limitation (781.2 mm scf/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for PM-10 (7.6 lbs/mm scf) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- m. Emission Limitation:
 32.79 tons CO per rolling, 12-month summation of emissions when burning natural gas

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational natural gas usage limitation (781.2 mm scf/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-1 (7/98) emission factor for CO (84 lbs/mm scf) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- n. Emission Limitation:
 2.15 tons VOC per rolling, 12-month summation of emissions when burning natural gas

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational natural gas usage limitation (781.2 mm scf/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for VOC (5.5 lbs/mm scf) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month

Emissions Unit ID: **B009**

emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- o. Emission Limitation:
0.23 tons SO₂ per rolling, 12-month summation of emissions when burning natural gas
- Applicable Compliance Method:
The rolling, 12-month summation emissions limitation was established by multiplying the operational natural gas usage limitation (781.2 mm scf/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for SO₂ (0.6 lbs/mm scf) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.
- p. Emission Limitation:
2.63 tons NO_x per rolling, 12-month summation of emissions when burning No. 2 fuel oil
- Applicable Compliance Method:
The rolling, 12-month summation emissions limitation was established by multiplying the operational No. 2 fuel oil usage limitation (284,387 gallons/rolling, 12-month summation) by the average heat content of the No. 2 fuel oil (may assume 140,000 Btu/gallon in the absence of actual data) and then multiplying by the most recent performance test emissions factor (currently 0.132 lbs NO_x / mm Btu for No. 2 fuel oil combustion per manufacturers data , NATCOM Emissions-Reduction Equipment Summary Sheet) and then dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.
- q. Emission Limitation:
0.28 tons PM-10 per rolling, 12-month summation of emissions when burning No. 2 fuel oil
- Applicable Compliance Method:
The rolling, 12-month summation emissions limitation was established by multiplying the operational No. 2 fuel oil usage limitation (284,387 gallons/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for PM-10 (2 lbs/10³ gallons) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.
- r. Emission Limitation:
0.71 tons CO per rolling, 12-month summation of emissions when burning No. 2 fuel oil

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Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational No. 2 fuel oil usage limitation (284,387 gallons/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-1 (7/98) emission factor for CO (5 lbs/10³ gallons) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- s. Emission Limitation:
0.03 tons VOC per rolling, 12-month summation of emissions when burning No. 2 fuel oil

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational No. 2 fuel oil usage limitation (284,387 gallons/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for VOC (0.2 lbs/10³ gallons) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- t. Emission Limitation:
4.04 tons SO₂ per rolling, 12-month summation of emissions when burning No. 2 fuel oil

Applicable Compliance Method:

The rolling, 12-month summation emissions limitation was established by multiplying the operational No. 2 fuel oil usage limitation (284,387 gallons/rolling, 12-month summation) by the USEPA Reference Document AP-42, 5th Edition Compilation of Air Pollution Emission Factors Section 1.4, Table 1.4-2 (7/98) emission factor for SO₂ (28.4 lbs/10³ gallons) and dividing by 2,000 lbs/ton. Therefore, compliance with the rolling, 12-month emissions limitation shall be assumed provided compliance is maintained with the rolling, 12-month usage restriction.

- u. Emission Limitation:
20% opacity, as a six-minute average, except as provided by rule, when burning natural gas

Applicable Compliance Method:

Compliance shall be determined by visible emission observations performed in accordance with 40 CFR Part 60, Appendix A., Method 9 and the procedures specified

Cleveland Clinic Foundation
PTI Application: 13-04336
Issued

Facility ID: 1318004311

Emissions Unit ID: **B009**

in OAC Rule 3745-17-03)(B)(1).

- v. Emission Limitation:
20% opacity, as a six-minute average except for one 6-minute period per hour of not more than 27% opacity when burning No. 2 fuel oil

Clevel

PTI A

Emissions Unit ID: **B009**

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Applicable Compliance Method:

Compliance shall be determined by visible emission observations performed in accordance with 40 CFR Part 60, Appendix A., Method 9 and the procedures specified in OAC Rule 3745-17-03)(B)(1).

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: A., B.1, B.2.a., B.4., B.5, C., D. and E.