



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

7/7/2016

Mike Heise
 The Medical Center Company
 2250 Circle Drive
 Cleveland, OH 44106-2664

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 1318003059
 Permit Number: P0120687
 Permit Type: Administrative Modification
 County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
Yes	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of 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 permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Plain Dealer. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall Permit Review/Development Section Ohio EPA, DAPC 50 West Town Street, Suite 700 P.O. Box 1049 Columbus, Ohio 43216-1049	and	Cleveland Division of Air Quality 2nd Floor 75 Erieview Plaza Cleveland, OH 44114
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Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297.

Sincerely,

Michael E. Hopkins, P.E.
 Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 -Via E-Mail Notification
 CDAQ; Pennsylvania; Canada

Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination (to avoid PSD and NNSR)

Netting Determination

2. Source Description:

The Medical Center Company (MCCO) is a primary producer of commercial/institutional steam heat and hot water for the University Circle area in Cleveland, Ohio. The facility consists of eight (8) boilers: B003 and B004 (coal), B009 and B010 (nat gas), B014, B016, B022 and new boiler B023 (nat gas and No.2 fuel oil).

These proposed permits, P0118533 and P0118541, cover the installation of one 119.8 mmBtu/hr natural gas/No.2 oil fired boiler (B023) and the modification of three natural gas-fired boilers (B014, B016 and B022) at the facility to have the capability to burn No.2 fuel oil. The coal boilers, B003 and B004, will be permanently shutdown.

3. Facility Emissions and Attainment Status:

This facility has the potential to emit (PTE) SO₂, NO_x, CO and PE emissions in excess of 100 TPY which results in Title V applicability. Cuyahoga County is currently designated as non-attainment for ozone (VOC and NO_x precursor), partial non-attainment for lead, and non-attainment for PM_{2.5} (SO₂ and NO_x precursors).

4. Source Emissions:

The facility is major for SO₂, NO_x, CO, PE emissions. MCCO is requesting a federally enforceable Synthetic Minor limitation that restricts the operating hours of the new boiler (B023) as well as boilers B014, B016, and B022, combined, to 2,000 hours, based upon a rolling, 12-month summation of the operating hours while burning No.2 fuel oil. The TPY allowable emissions based on this 12-month operating hours restriction are stated in item (7) below for each emissions unit associated with this project (the allowable limit assumes that a single boiler could use the full 2,000 hours if the other boilers do not burn fuel oil during the year). In addition to the operating hours restrictions for the new boiler (B023) and the modified boilers (B014, B016 and B022) while burning No.2 fuel oil, the coal boilers at the facility (B003 and B004) will be shutting down. As a result, this PTI will also serve as a Netting permit.

The last page of this permit strategy write up contains the Netting analysis. It demonstrates that a significant net emissions increase of PM_{2.5}, and NO_x does not occur as a result of the boiler project after applying the contemporaneous decrease emissions from the shutdown of the coal boilers.

Additionally, SO₂, PM₁₀, CO, VOC and lead emissions were evaluated for this boiler project and show no increase over the significant emission rate thresholds before applying the contemporaneous decrease emissions from the shutdown of the coal boilers.

Note that the net PM_{2.5} and NO_x emissions are actually an emission decrease.

5. Conclusion:

The proposed boiler installation/modification project will not subject the MCCO to the Non-Attainment NewSource Review (NNSR) regulations for nitrogen oxides (NO_x), volatile organic compounds (VOC), PM_{2.5}, and lead (Pb) emissions, and Prevention of Significant Deterioration (PSD) regulations for nitrogen oxides (NO_x), carbon monoxide (CO), lead (Pb), sulfur dioxide (SO₂), and PM₁₀ emissions as result of this project since the final net emissions increase listed in the Netting analysis do not exceed the significant emissions increase thresholds listed in the Netting analysis. This includes the federally enforceable Synthetic Minor limitation that restrict the operating hours of the new boiler (B023) as well as boilers B014, B016, and B022, combined, to 2,000 hours, based upon a rolling, 12-month summation of the operating hours while burning No.2 fuel oil.

6. Please provide additional notes or comments as necessary:

None.

7. Total Permit Allowable Emissions Summary (for informational purposes only):

	<i>SO₂ (TPY)</i>	<i>NO_x (TPY)</i>	<i>PM₁₀/PM_{2.5} (TPY)</i>	<i>VOC (TPY)</i>	<i>CO (TPY)</i>
Gas/oil Boiler B014	36.88	27.76	5.64	2.10	22.14
Gas/oil Boiler B016	37.64	28.34	5.75	2.15	22.63
Gas/oil Boiler B022	38.28	28.84	5.88	2.19	23.03
Gas/oil Boiler B023	36.69	27.62	5.62	2.10	22.03

NOTE: The above allowable limits were established based on each boiler using natural gas for 6,760 hours per year and No. 2 fuel oil for 2,000 hours per year. However, all four boilers combined are limited to 2,000 hours while burning No.2 fuel oil. The above limits allow the flexibility for one boiler to use the full 2,000 hours per year burning No.2 fuel oil.

The Medical Center
Permits P0118541 and P0118533

Netting Analysis								
<i>Baseline Actual 2 year average emissions (BA)</i>		<i>SO₂ (TPY)</i>	<i>NO_x (TPY)</i>	<i>PM₁₀ (TPY)</i>	<i>PM_{2.5} (TPY)</i>	<i>CO (TPY)</i>	<i>VOC (TPY)</i>	<i>Lead (TPY)</i>
Gas Boiler	B014	0.21	2.63	0.45	0.45	5.78	0.38	0
Gas Boiler	B016	0.04	2.72	0.39	0.39	5.96	0.39	0
Gas Boiler	B022	0.06	2.18	0.18	0.18	8.12	0.53	0
<i>New/modified PTI Allowable Emissions (AE)</i>								
Gas/oil Boiler	B014	0.3	18.98	2.64	2.64	19.51	2.11	2.54E-04
Gas/oil Boiler	B016	0.31	19.38	2.69	2.69	19.92	2.15	2.59E-04
Gas/oil Boiler	B022	38.28	28.84	5.86	5.86	23.01	2.19	1.33E-03
Gas/oil Boiler	B023	0.3	18.89	2.62	2.62	19.41	2.10	2.52E-04
<i>Project emissions increases (sum of AE)</i>		39.19	86.09	13.81	13.81	81.85	8.55	2.1E-03
<i>Initial Total Emission Increases (INI = AE – BA)</i>		38.88	78.56	12.79	12.79	61.99	7.25	2.1E-03
<i>Significant emission rate thresholds</i>		40	40	15	10	100	40	0.6
<i>Initial Significant determination (Y/N)</i>		N	Y	N	Y	N	N	N
Contemporaneous period for the project: 2010 - 2015								
<i>Contemporaneous Increases (CI)</i>								
None.			0		0			
<i>Contemporaneous Decreases (CD)</i>								
Coal Boiler	B003		-101.63		-7.50			
Coal Boiler	B004		-100.25		-7.73			
<i>Net emission Increases (NI = CI + CD + INI)</i>			-123.32		-2.44			
<i>Significant emission rate thresholds</i>			40		10			
<i>Final Significant determination (Y/N)</i>			N		N			



Permit Strategy Write-Up
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059

NOTE: The above analysis assumes that the highest emitting boiler (B022) uses the full 2,000 hours/year for fuel oil and 6,760 hours/year on natural gas. The other boilers (B014, B016 and B023) contribution is based on 8,760 hours/year on natural gas.

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install Administrative Modification

The Medical Center Company

2250 Circle Drive,, Cleveland, OH 44106-2664

ID#:P0120687

Date of Action: 7/7/2016

Permit Desc:PTI administrative modification for emissions unit B023 to allow for the use of a Predictive Emissions Monitoring Systems (PEMS) to monitor NOx emissions..

The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the ID # or: David Hearne, Cleveland Division of Air Quality, 2nd Floor 75 Erieview Plaza, Cleveland, OH 44114. Ph: (216)664-2297



DRAFT

**Division of Air Pollution Control
Permit-to-Install
for
The Medical Center Company**

Facility ID:	1318003059
Permit Number:	P0120687
Permit Type:	Administrative Modification
Issued:	7/7/2016
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
The Medical Center Company

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Draft Permit-to-Install
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1318003059
Facility Description: Steam heat and hot/chilled water provider.
Application Number(s): M0003920
Permit Number: P0120687
Permit Description: PTI administrative modification for emissions unit B023 to allow for the use of a Predictive Emissions Monitoring Systems (PEMS) to monitor NOx emissions.
Permit Type: Administrative Modification
Permit Fee: \$250.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 7/7/2016
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

The Medical Center Company
2250 Circle Drive
Cleveland, OH 44106-2664

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality
2nd Floor
75 Erievue Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section 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 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

Craig W. Butler
Director



Draft Permit-to-Install
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0120687

Permit Description: PTI administrative modification for emissions unit B023 to allow for the use of a Predictive Emissions Monitoring Systems (PEMS) to monitor NOx emissions.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	B023
Company Equipment ID:	B023
Superseded Permit Number:	P0118541
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Cleveland Division of Air Quality.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Cleveland Division of Air Quality. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Cleveland Division of Air Quality every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Cleveland Division of Air Quality in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Cleveland Division of Air Quality concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Cleveland Division of Air Quality.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and 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 Cleveland Division of Air Quality. 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, 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Draft Permit-to-Install
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The facility will be a major source of HAP emissions at the time of permit issuance. The requirements of either 40 CFR Part 63, Subpart DDDDD or Subpart JJJJJJ may be applicable to the new or modified emissions units, depending upon the major or area source status of the facility for HAPs emissions at the first substantive compliance date of 40 CFR Part 63, Subpart DDDDD (January 31st, 2017).
3. The permittee shall comply with the applicable provisions of the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, as promulgated by the United States Environmental Protection Agency under 40 CFR Part 60, Subpart Db. This NSPS rule applies to emissions unit B023.
4. The complete NSPS and MACT requirements, including the NSPS and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Cleveland Division of Air Quality.
5. Netting Demonstration:

This air permit to install (PTI) is part of the Boiler Project at the Medical Center Company (MCCO) facility which involves the shutdown of coal fired boilers (emissions unit B003 and B004), installation of a new natural gas/ No. 2 fuel oil boiler (emissions unit B023) and the modification of three existing natural gas fired boilers (emissions units B014, B016 and B022) to include No. 2 fuel oil.

The federally enforceable terms and conditions of this air permit-to-install (PTI) have been included for the purpose of Netting out of Non-Attainment New Source Review (NNSR) for nitrogen oxides (NO_x) and particulate (PM_{2.5}) emissions, and Netting out of Prevention of Significant Deterioration (PSD) for nitrogen oxides (NO_x) emissions.

The other pollutants that are emitted (sulfur dioxide, PM₁₀, carbon monoxide, volatile organic compounds, and lead) were evaluated during the analysis; however, these pollutants did not exceed the significant threshold for this project in the first step for determining the amount of emission increase. Therefore, it was not necessary to include these pollutants in the second step of applying emission reduction credits for the shutdown of the coal boilers.

Following the NSR definitions in OAC rule 3745-31-01(O), the baseline actual emissions were based on the average of the highest two consecutive years prior to the date of the original permit application for the Boiler Project, submitted February 24, 2015. The permittee used the ten year period of 2004 – 2014 to select the highest two-year average. The Netting analysis demonstrates that a significant net emissions increase of NO_x and PM_{2.5}, does not occur as a result of the boiler project after applying the contemporaneous emissions decrease from the shutdown of the coal boilers. Note that the net NO_x and PM_{2.5} emissions are actually an emission decrease.

A summary of the Netting analysis is provided in the table below. The complete Netting analysis is shown in the Permit Strategy Write-up that is included with the Draft permit.

Pollutant	Project emission increase, tpy	Baseline Actual Emissions for shutdown coal boilers, tpy	Project net emissions, tpy	Major NSR Significant emission rate, tpy
NO _x	70.66	201.88	- 131.22	40
PM _{2.5}	10.03	15.23	- 5.2	10

6. Upon the completion of installation or modification of emissions units B014, B016, B022 and B023, the coal boilers (B003 and B004) must be permanently removed from service by January 13, 2017.

There will be a period of transition after the start up of the new boiler and prior to the existing coal boilers going offline. This time will be used for bringing the new and modified boilers up to normal operating conditions and will be referred to as the shakedown period. The permittee has agreed that the shakedown period for the new and modified boilers shall not exceed 180 operating days after initial start up. At the end of the shakedown period, the status will be changed to operational.

The permittee has agreed to the following decommissioning schedule. Note: Once a coal boiler goes offline, it will only be brought back online if the new and modified boilers replacing them runs into unanticipated problems. The coal boilers and the new and modified boilers replacing them shall not operate simultaneously after the end of the 180-operating day shakedown period.

The permittee shall permanently shut down the coal boilers no later than January 13, 2017 after the new boiler system becomes fully operational and has passed all compliance tests required by the permit-to-install.



Draft Permit-to-Install
The Medical Center Company
Permit Number: P0120687
Facility ID: 1318003059
Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions

1. B023, B023

Operations, Property and/or Equipment Description:

Natural gas/No.2 oil-fired boiler rated at 119.8 mmBtu/hr heat input equipped with Low NO_x Burners (LNB), Flue Gas Recirculation (FGR) and an oxygen (O₂) trim system

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)c., b)(2)b. and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008 ORC 3704.03(T)	Nitrogen oxide (NO _x) emissions shall not exceed 1.60 tons per month averaged over a 12-month rolling period. Carbon monoxide (CO) emissions shall not exceed 1.63 tons per month averaged over a 12-month rolling period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008 ORC 3704.03(T)	The total particulate emissions (including PM ₁₀ /PM _{2.5}) shall not exceed 0.23 ton per month averaged over a 12-month rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.176 ton per month averaged over a 12-month rolling period. Sulfur dioxide (SO ₂) emissions shall not exceed 0.098 ton per month averaged over a 12-month rolling period. See b)(2)a. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the total particulate and VOC emissions from this air contaminant source since the potential to emit is less than 10 tons per year. See b)(2)b. below.
d.	OAC rule 3745-31-05(D) (Synthetic Minor and Netting to avoid PSD and NNSR.)	Sulfur dioxide (SO ₂) emissions shall not exceed 1.18 tons per rolling 12-month period. Nitrogen oxide (NO _x) emissions shall not exceed 19.19 tons per rolling 12-month period. Carbon monoxide (CO) emissions shall not exceed 19.57 tons per rolling 12-month period. The total particulate emissions (including PM ₁₀ /PM _{2.5}) shall not exceed 2.72 tons per rolling 12-month period. Volatile organic compounds (VOC) emissions shall not exceed 2.11 tons per rolling 12-month period. See c)(3) below.
e.	OAC rule 3745-17-07(A)	The visible particulate emissions limitation of this rule is less stringent than the visible particulate emissions limitation established in 40 CFR Part 60, Subpart Db.
f.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu actual heat input.
g.	OAC rule 3745-18-06(D)	Sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu actual heat input.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-110-03(C)	<p>Natural gas:</p> <p>Nitrogen oxide (NO_x) emissions shall not exceed 0.10 lb/mmBtu.</p> <p>No.2 oil:</p> <p>Nitrogen oxide (NO_x) emissions shall not exceed 0.12 lb/mmBtu.</p> <p>Based on a 24 hour daily heat input-weighted average or a 30 day rolling heat input-weighted average emission rate from October 1st to April 30th.</p>
i.	40 CFR Part 60 Subpart Db	<p>Nitrogen oxide (NO_x) emissions shall not exceed 0.20 lb/mmBtu as a rolling, 30-day average.</p> <p>Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27%.</p>
j.	40 CFR Part 63, Subpart JJJJJJ	See b)(2)e. below.

(2) Additional Terms and Conditions

- a. These Best Available Technology (BAT) emission limits apply until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U. S. EPA approves paragraph 3745-31-05(A)(3)(a)(ii) (less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. Each continuous NO_x predictive emissions monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16 for each permitted fuel. At least 45 days before commencing certification testing of the NO_x predictive emissions monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_x predictive emissions continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. The quality assurance/quality control plan and a

logbook dedicated to the continuous NO_x predictive emissions monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct daily sensor evaluations; to conduct quarterly relative accuracy audits; and to conduct yearly relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60, Appendix B, Performance Specification 16.

- d. The predictive emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes all sensors, algorithms, and data recording/processing hardware and software. Any change to algorithms or model data used to predict NO_x emissions shall require new certification testing of the NO_x predictive emissions monitoring systems per PS-16 including a three load (27 run RATA). Use of bias adjustment factors, and like kind replacements of the PEMS hardware or sensors used in the model do not require recertification as long as the changes do not significantly (changes of more than 0.5 % absolute O₂, or 5% NO_x) impact the predicted emissions.
- e. Provided that this emissions unit meets the definition of a “gas fired boiler”, as defined in 40 CFR Part 63.11237, this emissions unit is not subject to the requirements of this rule if fuel oil is only burned during periods of gas curtailment, gas supply emergencies, or periodic testing. Periodic testing of the fuel oil shall not exceed 48 hours during any calendar year.

c) **Operational Restrictions**

- (1) The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.
- (2) The quality of the oil burned in this emissions unit shall meet a sulfur content that is less than or equal to 0.3% by weight which is sufficient to comply with the allowable sulfur dioxide emission limitation specified in this permit. The fuel oil shall comply with the definition of “very low sulfur oil” contained in 40 CFR Part 60 Subpart Db.
- (3) The permittee shall operate and maintain predictive monitoring equipment to continuously predict and record the NO_x emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

d) **Monitoring and/or Recordkeeping Requirements**

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

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

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

- (3) The Ohio EPA, Central Office shall approve the initial certification testing protocol, and shall review all initial certification testing data. Upon a satisfactory review of the initial certification testing data, Ohio EPA shall acknowledge that the NO_x predictive emissions monitoring system meets the requirements of Performance Specification 16 by sending a Certification Letter. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- (4) The permittee shall install, operate, and maintain equipment to continuously predict and record NO_x emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

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

- a. predicted emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
 - b. predicted emissions of a diluents (O₂ or CO₂) in percent on an instantaneous (one-minute) basis;
 - c. predicted flow rates of the emissions stream, in dry standard cubic feet per minute (this is required only for NO_x predictive emissions monitoring systems that are being used to demonstrate compliance with a NO_x pound-per-hour limit.);
 - d. emissions of NO_x in all units of the applicable standard(s) in the appropriate averaging period;
 - e. results of quarterly relative accuracy audits;
 - f. results of daily sensor checks and a list of adjustments or repairs/replacements that are made;
 - g. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - h. hours of operation of the emissions unit, NO_x predictive emissions monitoring system, and control equipment;
 - i. the date, time, and hours of operation of the emissions unit without the control equipment and/or the NO_x predictive emissions monitoring system;
 - j. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the NO_x predictive emissions monitoring system; and
 - k. the reason (if known) and the corrective actions taken (if any) for each such event in i. and j. above.
- (5) The permittee shall maintain monthly records of the operating hours while burning No.2 fuel oil.
- (6) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 60, Subpart Db, including the following sections:

Applicable Rule	Requirement
60.48b(g)(2)	Monitoring requirements for nitrogen oxides
60.49b (d)(1)	Maintain records of fuels
60.49b (f)	Maintain records of opacity
60.49b (g)(1) – (g)(7)	Maintain records of NO _x emissions
60.49b (o)	Maintain records for 2 years



60.49b (r)	Maintain fuel records or develop fuel analysis plan
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e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify :
 - a. any exceedance of the allowable sulfur dioxide emission limitation, pounds sulfur dioxide/MMBtu actual heat input; and
 - b. any deviation from the maximum % sulfur content, by weight, limitation on the No.2 fuel oil.

The deviation (excursion) reports shall be submitted within 30 days after the deviation occurs.

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its NO_x predictive emissions monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x predicted emissions in excess of any applicable limit specified in this permit, boiler operation with a PEMS parameters outside the envelopes* developed during the model building testing, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

* Note: Periods when the emissions unit is operating outside the envelopes established during the model building testing are viewed as “emission exceedances” by Ohio EPA for purposes of determining compliance with the emission limitations.

- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;

- ii. the manufacturer, model number, and serial number of the NO_x predictive emissions monitoring systems;
- iii. a description of any change in the equipment that comprises the predictive emission monitoring system, including any change to the hardware, and/or changes to the software or model data sets in the predictive algorithms;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NO_x emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the NO_x predictive emissions monitoring system while the emissions unit was in operation;
- viii. results and dates of quarterly relative accuracy audits;
- ix. unless previously submitted, the results of any relative accuracy test audit showing the NO_x predictive emissions monitor out-of-control and the compliant results following any corrective actions;
- x. the date, time, and duration of any/each malfunction** of the NO_x predictive monitoring system, emissions unit, and/or control equipment;
- xi. the date, time, and duration of any downtime** of the NO_x predictive emissions monitoring system and/or control equipment while the emissions unit was in operation; and
- xii. the reason (if known) and the corrective actions taken (if any) for each event in x. and xi. above.

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

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

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

- (4) The permittee shall submit reports (electronic format) within 30 days following the end of each calendar quarter to the Cleveland Division of Air Quality documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NO_x values in excess of the applicable NO_x emission rate (pound per mmBtu).

The reports shall also identify any predictive NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and/or control equipment malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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 also shall be included in the quarterly report.

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

- (5) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subpart Db, including the following sections:

Applicable Rule	Requirement
60.49b(a)	Notification of initial start up
60.49b(c)	Submit monitoring of operating conditions and recordkeeping plan
60.49b(h)	Submit excess emission reports for NO _x
60.49b(v)	Electronic report submittal
60.49b(w)	Reports required for each 6-month period

- (6) 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
 Lazarus Government Center



50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

- (7) Simultaneous to beginning operation (following a reasonable shakedown period) of emissions units B014, B016, B022 and B023, the permittee shall submit a notification documenting the shutdown dates for emissions units B003 and B004.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
Nitrogen oxide (NO_x) emissions shall not exceed 1.60 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The monthly average emissions limitation was established by multiplying the maximum hourly natural gas usage rate (0.115 mmcf/hr) by the boiler manufacturer emission factor for NO_x emissions (0.036 lb of NO_x/mmBtu), the heat content of natural gas (1,040 Btu/cf), the maximum operating hours of the emissions unit while burning natural gas (8,760 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions limitation was established by multiplying the maximum hourly No.2 oil usage rate (855.7 gallons/hr) by the boiler manufacturer emission factor for NO_x emissions (0.109 lb of NO_x/mmBtu), the heat content of No.2 oil (0.14 mmBtu/gallon), the annual operating hours restriction of the emissions unit while burning No.2 oil (48 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions from both fuels are summed to obtain the total ton per month emission rate based on the actual operating hours for each type of fuel.

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(4) of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period and divide by 12 months for the monthly average.

- b. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 1.63 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The monthly average emissions limitation was established by multiplying the maximum hourly natural gas usage rate (0.115 mmcf/hr) by the boiler manufacturer emission factor for CO emissions (0.037 lb of CO/mmBtu), the heat

content of natural gas (1,040 Btu/cf), the maximum operating hours of the emissions unit while burning natural gas (8,760 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions limitation was established by multiplying the maximum hourly No.2 oil usage rate (855.7 gallons/hr) by the boiler manufacturer emission factor for CO emissions (0.059 lb of CO/mmBtu), the heat content of No.2 oil (0.14 mmBtu/gallon), the annual operating hours restriction of the emissions unit while burning No.2 oil (48 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions from both fuels are summed to obtain the total ton per month emission rate based on the actual operating hours for each type of fuel.

c. Emission Limitation:

The total particulate emissions (including PM₁₀/PM_{2.5}) shall not exceed 0.23 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The monthly average emissions limitation was established by multiplying the maximum hourly natural gas usage rate (0.115 mmcf/hr) by the boiler manufacturer emission factor for particulate emissions (0.005 lb of PE/mmBtu), the heat content of natural gas (1,040 Btu/cf), the maximum operating hours of the emissions unit while burning natural gas (8,760 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions limitation was established by multiplying the maximum hourly No.2 oil usage rate (855.7 gallons/hr) by the boiler manufacturer emission factor for particulate emissions (0.03 lb of PE/mmBtu), the heat content of No.2 oil (0.14 mmBtu/gallon), the annual operating hours restriction of the emissions unit while burning No.2 oil (48 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions from both fuels are summed to obtain the total ton per month emission rate based on the actual operating hours for each type of fuel.

d. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 0.176 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The monthly average emissions limitation was established by multiplying the maximum hourly natural gas usage rate (0.115 mmcf/hr) by the boiler manufacturer emission factor for VOC emissions (0.004 lb of VOC/mmBtu), the heat content of natural gas (1,040 Btu/cf), the maximum operating hours of the emissions unit while burning natural gas (8,760 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions limitation was established by multiplying the maximum hourly No.2 oil usage rate (855.7 gallons/hr) by the boiler manufacturer emission factor for VOC emissions (0.004 lb of VOC/mmBtu), the heat content of No.2 oil (0.14 mmBtu/gallon), the annual operating hours restriction of the emissions unit while burning No.2 oil (48 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions from both fuels are summed to obtain the total ton per month emission rate based on the actual operating hours for each type of fuel.

e. Emission Limitation:

Sulfur dioxide (SO₂) emissions shall not exceed 0.098 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The monthly average emissions limitation was established by multiplying the maximum hourly natural gas usage rate (0.115 mmcf/hr) by the U.S. EPA 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 emissions (0.6 lb of SO₂/mmcf), the maximum operating hours of the emissions unit while burning natural gas (8,760 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions limitation was established by multiplying the maximum hourly No.2 oil usage rate (855.7 gallons/hr) by the U.S. EPA reference document AP-42, 5th edition Compilation of Air Pollution Emission Factors Section 1.3-1, Table 1.3-1 (05/10) emission factor for SO₂ emissions (142S lbs of SO₂/1,000 gallons where S = the % sulfur in the No.2 fuel (0.3%)), the annual operating hours restriction of the emissions unit while burning No.2 oil (48 hrs), dividing by 2,000 lbs/ton and divide by 12 months.

The monthly average emissions from both fuels are summed to obtain the total ton per month emission rate based on the actual operating hours for each type of fuel.

f. Emission Limitation:

Sulfur dioxide (SO₂) emissions shall not exceed 1.18 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(2) and d)(5) and using the calculations identified in f)(1)e. of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period.

g. Emission Limitation:

Nitrogen oxide (NO_x) emissions shall not exceed 19.19 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(4) of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period.

h. Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 19.57 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(5) and using the calculations identified in f)(1)b. of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period.

i. Emission Limitation:

The total particulate emissions (including PM₁₀/PM_{2.5}) shall not exceed 2.72 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(5) and using the calculations identified in f)(1)c. of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period.

j. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 2.11 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with this annual limitation shall be based on the record keeping requirements specified in d)(5) and using the calculations identified in f)(1)d. of this permit and shall be the sum of the monthly emission rates for each rolling, 12-month period.

k. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu actual heat input.

Applicable Compliance Method:

When burning natural gas, compliance with the lb/mmBtu emission limitation may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.115 mmcf/hr) by the U.S. EPA reference document AP-42, 5th edition Compilation of Air Pollution Emission Factors Section 1.4 Table 1.4-2(7/98) emission factor for particulates (1.9 lbs/mmcf) and dividing by the maximum hourly heat input capacity of the emissions unit (119.8 mmBtu/hr).

When burning No.2 fuel oil, compliance with the lb/mmBtu emission limitation may be determined by multiplying the maximum fuel oil capacity of the emissions unit (855.7 gallons/hr) by the AP-42 emission factor for No.2 fuel oil (2.0 lbs of

particulates/1,000 gallons - Section 1.3-12, Table 1.3.1 (05/10)), and dividing by the maximum hourly heat input capacity of the emissions unit (119.8 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 5 and 19.

l. Emission Limitation:

Sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu actual heat input.

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received, or each daily composite sample of the oil burned during each calendar day, meets the limitation in accordance with d)(2).

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.

m. Emission Limitation:

Nitrogen oxide (NO_x) emissions shall not exceed the following limitations:

Natural gas:

Nitrogen oxide (NO_x) emissions shall not exceed 0.10 lb/mmBtu based on a 24 hour daily heat input-weighted average or a 30 day rolling heat input-weighted average emission rate from October 1st to April 30th.

No.2 oil:

Nitrogen oxide (NO_x) emissions shall not exceed 0.12 lb/mmBtu based on a 24 hour daily heat input-weighted average or a 30 day rolling heat input-weighted average emission rate from October 1st to April 30th.

Applicable Compliance Method:

Ongoing compliance with the NO_x emissions limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in d)(4) of the monitoring and record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

If required, the permittee shall demonstrate compliance with the emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7, 7A, 7C, 7D, or 7E, and any additional approved USEPA methods as applicable.

n. Emission Limitation:

Nitrogen oxide (NO_x) emissions shall not exceed 0.20 lb/mmBtu as a rolling, 30-day average.

Applicable Compliance Method:

For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission limit. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period in units of lb/mmBtu.

Following the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_x standards in 40 CFR 60.44b through the use of a 30-day performance test.

During periods when performance tests are not requested, NO_x emissions data collected pursuant to 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.

Ongoing compliance with the NO_x emissions limitation contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in d)(4) and d)(6) of the monitoring and record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

If required, the permittee shall demonstrate compliance with the emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7, 7A, 7C, 7D, or 7E, and any additional approved USEPA methods as applicable.

o. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in 40 CFR Part 60.48b(a). The permittee shall also comply with the requirements of f)(2) below.

- (2) The permittee shall comply with the applicable compliance requirements and testing requirements required under 40 CFR Part 60, Subpart Db, including the following sections:

Applicable Rule	Requirement
60.46b(c)	Compliance and performance test methods and procedures for nitrogen oxides
60.46b(d)	Initial test for opacity
60.46b(e)	Performance test for NO _x (using PEMS instead of CEMS).

- (3) Within 60 days of achieving the maximum operating rate at which the emissions unit will be operated, but not later than 180 days after initial startup, the permittee shall perform an initial certification test for each predictive emissions monitoring system in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. Annual recertification testing shall be performed in accordance with and at the frequencies required by 40 CFR Part 60, Appendix B, Performance Specification 16 and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the NO_x predictive emissions monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16; and ORC section 3704.03(I).

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

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.