



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/21/2011

Mr. Erin Keegan
Bowling Green State Univ
1001 E. Wooster St
Bowling Green, OH 43403

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0387029240
Permit Number: P0087943
Permit Type: Renewal
County: Wood

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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

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

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NWDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Bowling Green State Univ**

Facility ID:	0387029240
Permit Number:	P0087943
Permit Type:	Renewal
Issued:	6/21/2011
Effective:	6/21/2011
Expiration:	6/21/2016



Division of Air Pollution Control
Permit-to-Install and Operate
for
Bowling Green State Univ

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Authorization

Facility ID: 0387029240
Application Number(s): A0019037, A0042035
Permit Number: P0087943
Permit Description: Renewal Federally Enforceable PTIO for the facility's three 110 MMBtu/hr natural gas or #2 oil-fired boilers (B012, B013 and B014).
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 6/21/2011
Effective Date: 6/21/2011
Expiration Date: 6/21/2016
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Bowling Green State Univ
1001 E. Wooster St
Bowling Green, OH 43403

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

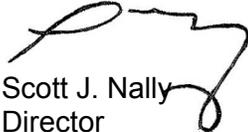
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0087943

Permit Description: Renewal Federally Enforceable PTIO for the facility's three 110 MMBtu/hr natural gas or #2 oil-fired boilers (B012, B013 and B014).

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

Emissions Unit ID:	B012
Company Equipment ID:	Boiler No.1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B013
Company Equipment ID:	Boiler No. 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B014
Company Equipment ID:	Boiler No.3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northwest District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. B012, Boiler No.1

Operations, Property and/or Equipment Description:

110 MMBtu/hr natural gas or #2 oil-fired boiler

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b., b)(2)a., c)(1), d)(4) and e)(2).

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)	<u>Emissions from Natural Gas Usage:</u> 0.06 pound nitrogen oxides (NOx)/MMBtu; 28.9 tons NOx/year 0.02 pound particulate emissions (PE)/MMBtu; 9.64 tons PE/year 0.0137 pound particulate matter 10 microns or less in size (PM10)/MMBtu; 6.6 tons PM10/year 0.003 pound volatile organic compounds (VOC)/MMBtu; 1.45 tons VOC/year 0.0006 pound sulfur dioxide (SO2)/MMBtu; 0.29 ton SO2/year 0.06 pound carbon monoxide (CO)/MMBtu; 28.9 tons CO/year



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Opacity Restriction [See b)(2)b.] <u>Emissions from #2 Fuel Oil Usage:</u></p> <p>0.1430 pound NOx/MMBtu; 0.02 pound PE/MMBtu; 0.019 pound PM10/MMBtu; 0.0926 pound SO2/MMBtu; 0.004 pound VOC/MMBtu; 0.12 pound CO/MMBtu; 0.0000089 lb lead (Pb)/MMBtu;</p> <p>Opacity Restriction [b)(2)c.]</p>
b.	OAC rule 3745-31-05(D)	<p><u>Emissions from #2 Fuel Oil Usage from emissions units B012, B013 and B014, combined:</u></p> <p>16.04 tons NOx/rolling, 12-month period 2.24 tons PE/rolling, 12-month period 2.13 tons PM10/rolling, 12-month period 10.40 tons SO2/rolling 12-month period 0.45 ton VOC/ rolling 12-month period 13.46 tons CO/rolling, 12 month period 0.001 ton Pb/rolling, 12-month period</p> <p>See b)(2)a.</p>
c.	OAC rule 3745-17-07(A)	See b)(2)d.
d.	OAC rule 3745-17-10(B)(1)	See b)(2)d.
e.	OAC rule 3745-18-06(D)	See b)(2)e.
f.	40 CFR Part 60, Subpart Db (40 CFR 60.40b – 60.49b)	See b)(2)d.

- (2) Additional Terms and Conditions
- a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for NO_x, PE, PM₁₀, SO₂, VOC, CO and lead. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1), which restricts the quality and quantity of #2 fuel oil combusted in emissions units B012, B013 and B014, combined:
- i. 16.01 tons NO_x/rolling, 12-month period;
 - ii. 2.64 tons PE/rolling, 12-month period;
 - iii. 2.12 tons PM₁₀/rolling, 12-month period;
 - iv. 10.40 tons SO₂/rolling 12-month period;
 - v. 0.45 ton VOC/ rolling, 12 month period;
 - vi. 13.46 tons CO/rolling, 12 month period; and
 - vii. 0.001 ton Pb/rolling, 12-month period.
- b. Visible particulate emissions while burning natural gas shall not exceed 20% opacity, as a six-minute average, except as provided by rule. The visible particulate emission limitation established by 40 CFR Subpart Db is more stringent than OAC rule 3745-17-07(A) during #2 fuel oil use.
- c. Visible particulate emissions while burning #2 fuel oil shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
- d. The emission limitation specified by this rule is as stringent as the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- f. Each continuous NO_x monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. At least 45 days before commencing certification testing of the continuous NO_x 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 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative

accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

- g. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.
- h. The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit the PTE of emissions units B012, B013, and B014:
 - a. The maximum #2 fuel oil usage for emissions units B012, B013 and B014, combined, shall not exceed 1,626,086 gallons per year, based upon a rolling, 12-month summation of the monthly fuel usage. These emissions unit have been in operation for more than 12 months and as such, the permittee has existing records to generate the rolling, 12-month summation of #2 fuel oil usage; and
 - b. the sulfur content of the #2 fuel oil being combusted shall not exceed 0.09 percent by weight.
- (2) The #2 fuel oil combusted in this emissions unit shall only be #2 fuel oil, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils".
- (3) The permittee shall operate and maintain equipment predictive monitoring equipment and record the opacity of the particulate emissions from this emissions unit when combusting #2 fuel oil.
- (4) The permittee shall only burn natural gas or #2 fuel oil in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

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

- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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

- (3) In lieu of the requirements of d)(2) for the sulfur content of #2 fuel oil, the permittee may keep records of fuel oil supplier certification, which shall include the following information:
- a. The name of the oil supplier.
 - b. A statement from the oil supplier that the oil complies with the specifications under the definition of 'distillate oil' in 40 CFR 60.41c.
 - c. The sulfur content of the oil.
- (4) The permittee shall maintain monthly records of the following information:
- a. the amount of #2 fuel oil burned, in gallons/month; and
 - b. the rolling, 12-month quantity of #2 fuel oil usage, in gallons, combined for emissions unit B012, B013 and B014.
- (5) The permittee shall install, operate, and maintain equipment to continuously monitor 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 Parts 60.

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

- a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
- b. emissions of NO_x in all units of the applicable standard(s) in the appropriate averaging period;
- c. results of quarterly cylinder gas audits;

- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - f. hours of operation of the emissions unit, continuous NOx monitoring system, and control equipment;
 - g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NOx monitoring system;
 - h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NOx monitoring system; as well as,
 - i. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)g. and d)(5)h.
- (6) Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 for approval by the Ohio EPA, Central Office. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NOx monitoring system meets the requirements of Performance Specification 2. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Ohio EPA, Northwest District Office upon request.
- a. Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- (7) In lieu of installing a continuous emissions monitoring system (CEM) for NOx, the permittee may elect to install a predictive emission monitoring system (PEMS) for the NOx emissions. The PEMS must meet 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems' as written by the United States Environmental Protection Agency, and the proposed system shall be approved in writing by Ohio EPA prior to installation. At such time that a performance specification for PEMS is promulgated, the PEMS shall be required to meet the promulgated requirements.

After initial testing to assure the PEMS meets the 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems', or when available, the promulgated performance specification, ongoing quality assurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendar quarters. RATA requirements are in addition to any and all PEMS manufacturer-suggested quality assurance/quality control procedures. RATA requirements shall include multi-load, multi-fuel (when applicable) testing. RATA testing shall be completed using the appropriate 40 CFR 60, Appendix A test methods (Methods 7E, 3A and 1-4 as necessary). RATA

testing protocol shall be submitted to the Director (the Ohio EPA, Central Office) for approval prior to installation of the PEMS.

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

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

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

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

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- f. the reason (if known) and the corrective actions taken (if any) for each such event in d)(9)d. and d)(9)e.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month fuel oil usage limitation for this emissions unit; and;
 - ii. all exceedances of the #2 fuel oil sulfur restriction.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
- a. Pursuant to the monitoring, recordkeeping, 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 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - 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 and model number of the continuous NO_x and other associated monitors;

- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NOx emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;
- viii. results and dates of quarterly cylinder gas audits;
- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NOx monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(3)b.xi. and e)(3)b.xii.

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 comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.
- 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 and model number of the continuous opacity monitor;
 - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total operating time (hours) of the emissions unit;
 - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
 - vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
 - viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
 - ix. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.vii. and e)(4)b.viii.

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

* where no exceedance of the opacity limit has 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 quarterly EER report

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

- (5) The owner or operator of each affected facility subject to the NO_x standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:
- a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_x emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/ or tertiary air) and the level of excess air (i.e., flue gas O₂ level);
 - b. Include the data and information that the owner or operator used to identify the relationship between NO_x emission rates and these operating conditions; and
 - c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. The emission testing shall be conducted within 180 days after the issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the following limitation involving the use of natural gas:
 - i. 0.06 pound CO per MMBtu.
 - c. When the emission unit is first fired with #2 fuel oil for purposes other than routine "maintenance" procedures (i.e. monthly checks to verify the operating condition of the boiler), the permittee shall conduct testing within 180 days after the initial firing with #2 fuel oil to demonstrate compliance with the following when firing #2 fuel oil:

- i. 0.12 pound CO per MMBtu.
- d. The following test methods shall be employed to demonstrate compliance with the above emission limitations:
 - i. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

- e. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, NWDO.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, NWDO's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, NWDO shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- g. A comprehensive written report of the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

[Note: In accordance with the General Provisions of 40 CFR Part 60, a written report of the results of the emission test(s) must be provided within the deadline specified in f)(1)a.]

- (2) Certification of the continuous NOx 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 Specifications 2; and ORC section 3704.03(I).

Initial certification of the CMC Solutions PEMs was granted in a letter dated June 11, 2010, by Ohio EPA, Central Office, Division of Air Pollution Control.

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.

- (3) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

Emissions from Natural gas combustion:

a. Emission Limitations:

0.06 pound NO_x/MMBtu; 28.9 tons NO_x/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Initial compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO. The permittee shall demonstrate ongoing compliance with this emission limitation by PEMS.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitations:

0.06 pound CO/MMBtu; 28.9 tons CO/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

c. Emission Limitations:

0.02 pound PE/MMBtu; 9.64 tons PE/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S.

EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

d. Emission Limitations:

0.0137 pound PM10/MMBtu; 6.6 tons PM10/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

e. Emission Limitations:

0.0006 pound SO2/MMBtu; 0.29 tons SO2/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

f. Emission Limitations:

0.003 pound VOC/MMBtu; 1.45 tons VOC/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 18, 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

Emissions from #2 Fuel oil usageg. Emission Limitations:

0.143 pound NO_x/MMBtu; 16.04 tons NO_x/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. The permittee shall demonstrate compliance with this emission limitation by PEMS. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

h. Emission Limitations:

0.12 pound CO/MMBtu; 13.46 tons CO/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

i. Emission Limitations:

0.02 pound PE/MMBtu; 2.24 tons PE/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

j. Emission Limitations:

0.019 pound PM10/MMBtu; 2.13 tons PM10/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

k. Emission Limitations:

0.004 pound VOC/MMBtu; 0.45 tons VOC/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emissions testing conducted in accordance with Methods 1-4, 18 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

l. Emission Limitations:

0.0926 pound SO₂/MMBtu; 10.40 ton SO₂/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

m. Emission Limitations:

0.0000089 pound Pb/MMBtu; 0.001 ton Pb/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods

1-4 and 12 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

n. Emission Limitation:

Visible particulate emissions, while burning natural gas, shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emission limitation shall be determined in accordance with OAC rule 3745-17-03(B).

o. Emission Limitation:

Visible particulate emissions, while burning #2 fuel oil, shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method

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

g) Miscellaneous Requirements

(1) None.



2. B013, Boiler No. 2

Operations, Property and/or Equipment Description:

110 MMBTU/hr Natural Gas Boiler

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

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)	<u>Emissions from Natural Gas Usage:</u> 0.06 pound nitrogen oxides (NOx)/MMBtu; 28.9 tons NOx/year 0.02 pound particulate emissions (PE)/MMBtu; 9.64 tons PE/year 0.0137 pound particulate matter 10 microns or less in size (PM10)/MMBtu; 6.6 tons PM10/year 0.003 pound volatile organic compounds (VOC)/MMBtu; 1.45 tons VOC/year 0.0006 pound sulfur dioxide (SO2)/MMBtu; 0.29 ton SO2/year 0.06 pound carbon monoxide (CO)/MMBtu; 28.9 tons CO/year



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Opacity Restriction [See b)(2)b.] <u>Emissions from #2 Fuel Oil Usage:</u></p> <p>0.1430 pound NOx/MMBtu; 0.02 pound PE/MMBtu; 0.019 pound PM10/MMBtu; 0.0926 pound SO2/MMBtu; 0.004 pound VOC/MMBtu; 0.12 pound CO/MMBtu; 0.0000089 lb lead (Pb)/MMBtu;</p> <p>Opacity Restriction [b)(2)c.]</p>
b.	OAC rule 3745-31-05(D)	<p><u>Emissions from #2 Fuel Oil Usage from emissions units B012, B013 and B014, combined:</u></p> <p>16.04 tons NOx/rolling, 12-month period 2.24 tons PE/rolling, 12-month period 2.13 tons PM10/rolling, 12-month period 10.40 tons SO2/rolling 12-month period 0.45 ton VOC/ rolling 12-month period 13.46 tons CO/rolling, 12 month period 0.001 ton Pb/rolling, 12-month period</p> <p>See b)(2)a.</p>
c.	OAC rule 3745-17-07(A)	See b)(2)d.
d.	OAC rule 3745-17-10(B)(1)	See b)(2)d.
e.	OAC rule 3745-18-06(D)	See b)(2)e.
f.	40 CFR Part 60, Subpart Db (40 CFR 60.40b – 60.49b)	See b)(2)d.

- (2) Additional Terms and Conditions
- a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for NO_x, PE, PM₁₀, SO₂, VOC, CO and lead. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1), which restricts the quality and quantity of #2 fuel oil combusted in emissions units B012, B013 and B014, combined:
- i. 16.01 tons NO_x/rolling, 12-month period;
 - ii. 2.64 tons PE/rolling, 12-month period;
 - iii. 2.12 tons PM₁₀/rolling, 12-month period;
 - iv. 10.40 tons SO₂/rolling 12-month period;
 - v. 0.45 ton VOC/ rolling, 12 month period;
 - vi. 13.46 tons CO/rolling, 12 month period; and
 - vii. 0.001 ton Pb/rolling, 12-month period.
- b. Visible particulate emissions while burning natural gas shall not exceed 20% opacity, as a six-minute average, except as provided by rule. The visible particulate emission limitation established by 40 CFR Subpart Db is more stringent than OAC rule 3745-17-07(A) during #2 fuel oil use.
- c. Visible particulate emissions while burning #2 fuel oil shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
- d. The emission limitation specified by this rule is as stringent as the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- f. Each continuous NO_x monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. At least 45 days before commencing certification testing of the continuous NO_x 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 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative

accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

- g. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.
- h. The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

c) **Operational Restrictions**

- (1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit the PTE of emissions units B012, B013, and B014:
 - a. The maximum #2 fuel oil usage for emissions units B012, B013 and B014, combined, shall not exceed 1,626,086 gallons per year, based upon a rolling, 12-month summation of the monthly fuel usage. These emissions unit have been in operation for more than 12 months and as such, the permittee has existing records to generate the rolling, 12-month summation of #2 fuel oil usage; and
 - b. the sulfur content of the #2 fuel oil being combusted shall not exceed 0.09 percent by weight.
- (2) The #2 fuel oil combusted in this emissions unit shall only be #2 fuel oil, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils".
- (3) The permittee shall operate and maintain equipment predictive monitoring equipment and record the opacity of the particulate emissions from this emissions unit when combusting #2 fuel oil.
- (4) The permittee shall only burn natural gas or #2 fuel oil in this emissions unit.

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

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

- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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

- (3) In lieu of the requirements of d)(2) for the sulfur content of #2 fuel oil, the permittee may keep records of fuel oil supplier certification, which shall include the following information:
- a. The name of the oil supplier.
 - b. A statement from the oil supplier that the oil complies with the specifications under the definition of 'distillate oil' in 40 CFR 60.41c.
 - c. The sulfur content of the oil.
- (4) The permittee shall maintain monthly records of the following information:
- a. the amount of #2 fuel oil burned, in gallons/month.; and
 - b. the rolling, 12-month quantity of #2 fuel oil usage, in gallons, combined for emissions unit B012, B013 and B014.
- (5) The permittee shall install, operate, and maintain equipment to continuously monitor 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 Parts 60.

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

- a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
- b. emissions of NO_x in all units of the applicable standard(s) in the appropriate averaging period;
- c. results of quarterly cylinder gas audits;

- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - f. hours of operation of the emissions unit, continuous NOx monitoring system, and control equipment;
 - g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NOx monitoring system;
 - h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NOx monitoring system; as well as,
 - i. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)g. and d)(5)h.
- (6) Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 for approval by the Ohio EPA, Central Office. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NOx monitoring system meets the requirements of Performance Specification 2. 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.
- a. Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- (7) In lieu of installing a continuous emissions monitoring system (CEM) for NOx, the permittee may elect to install a predictive emission monitoring system (PEMS) for the NOx emissions. The PEMS must meet 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems' as written by the United States Environmental Protection Agency, and the proposed system shall be approved in writing by Ohio EPA prior to installation. At such time that a performance specification for PEMS is promulgated, the PEMS shall be required to meet the promulgated requirements.

After initial testing to assure the PEMS meets the 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems', or when available, the promulgated performance specification, ongoing quality assurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendar quarters. RATA requirements are in addition to any and all PEMS manufacturer-suggested quality assurance/quality control procedures. RATA requirements shall include multi-load, multi-fuel (when applicable) testing. RATA testing shall be completed using the appropriate 40 CFR 60, Appendix A test methods (Methods 7E, 3A and 1-4 as necessary). RATA

testing protocol shall be submitted to the Director (the Ohio EPA, Central Office) for approval prior to installation of the PEMS.

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

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

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

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

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- f. the reason (if known) and the corrective actions taken (if any) for each such event in d)(9)d. and d)(9)e.

e) **Reporting Requirements**

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month fuel oil usage limitation for this emissions unit; and;
 - ii. all exceedances of the #2 fuel oil sulfur restriction.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
- a. Pursuant to the monitoring, recordkeeping, 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 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - 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 and model number of the continuous NO_x and other associated monitors;

- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NOx emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;
- viii. results and dates of quarterly cylinder gas audits;
- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NOx monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(3)b.xi. and e)(3)b.xii.

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 comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.
- 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 and model number of the continuous opacity monitor;
 - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total operating time (hours) of the emissions unit;
 - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
 - vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
 - viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
 - ix. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.vii. and e)(4)b.viii.

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

* where no exceedance of the opacity limit has 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 quarterly EER report

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

- (5) The owner or operator of each affected facility subject to the NO_x standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:
- a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_x emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/ or tertiary air) and the level of excess air (i.e., flue gas O₂ level);
 - b. Include the data and information that the owner or operator used to identify the relationship between NO_x emission rates and these operating conditions; and
 - c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- Emissions from Natural gas combustion:
- a. Emission Limitations:
0.06 pound NO_x/MMBtu; 28.9 tons NO_x/year
- Applicable Compliance Method:
- The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Initial compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO. The permittee shall demonstrate ongoing compliance with this emission limitation by PEMS.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitations:

0.06 pound CO/MMBtu; 28.9 tons CO/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A in emissions unit B012. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

c. Emission Limitations:

0.02 pound PE/MMBtu; 9.64 tons PE/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

d. Emission Limitations:

0.0137 pound PM10/MMBtu; 6.6 tons PM10/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in

accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

e. Emission Limitations:

0.0006 pound SO₂/MMBtu; 0.29 tons SO₂/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

f. Emission Limitations:

0.003 pound VOC/MMBtu; 1.45 tons VOC/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 18, 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

Emissions from #2 Fuel oil usage

g. Emission Limitations:

0.143 pound NO_x/MMBtu; 16.04 tons NO_x/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. The permittee shall demonstrate compliance with this emission limitation by PEMS. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

h. Emission Limitations:

0.12 pound CO/MMBtu; 13.46 tons CO/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

i. Emission Limitations:

0.02 pound PE/MMBtu; 2.24 tons PE/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

j. Emission Limitations:

0.019 pound PM10/MMBtu; 2.13 tons PM10/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

k. Emission Limitations:

0.004 pound VOC/MMBtu; 0.45 tons VOC/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emissions testing conducted in accordance with Methods 1-4, 18 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

I. Emission Limitations:

0.0926 pound SO₂/MMBtu; 10.40 ton SO₂/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

m. Emission Limitations:

0.0000089 pound Pb/MMBtu; 0.001 ton Pb/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 12 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

n. Emission Limitation:

Visible particulate emissions, while burning natural gas, shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emission limitation shall be determined in accordance with OAC rule 3745-17-03(B).

o. Emission Limitation:

Visible particulate emissions, while burning #2 fuel oil, shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method

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

- (2) Certification of the continuous NOx 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 Specifications 2; and ORC section 3704.03(I).

Initial certification of the CMC Solutions PEMs was granted in a letter dated June 11, 2010, by Ohio EPA, Central Office, Division of Air Pollution Control.

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.

g) Miscellaneous Requirements

- (1) None.



3. B014, Boiler No.3

Operations, Property and/or Equipment Description:

110 MMBTU/hr Natural Gas Boiler

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3) with detailed emission limits for NOx, PE, PM10, VOC, SO2, and CO.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Opacity Restriction [See b)(2)b.] <u>Emissions from #2 Fuel Oil Usage:</u></p> <p>0.1430 pound NOx/MMBtu; 0.02 pound PE/MMBtu; 0.019 pound PM10/MMBtu; 0.0926 pound SO2/MMBtu; 0.004 pound VOC/MMBtu; 0.12 pound CO/MMBtu; 0.0000089 lb lead (Pb)/MMBtu;</p> <p>Opacity Restriction [b)(2)c.]</p>
b.	OAC rule 3745-31-05(D)	<p><u>Emissions from #2 Fuel Oil Usage from emissions units B012, B013 and B014, combined:</u></p> <p>16.04 tons NOx/rolling, 12-month period 2.24 tons PE/rolling, 12-month period 2.13 tons PM10/rolling, 12-month period 10.40 tons SO2/rolling 12-month period 0.45 ton VOC/ rolling 12-month period 13.46 tons CO/rolling, 12 month period 0.001 ton Pb/rolling, 12-month period</p> <p>See b)(2)a.</p>
c.	OAC rule 3745-17-07(A)	See b)(2)d.
d.	OAC rule 3745-17-10(B)(1)	See b)(2)d.
e.	OAC rule 3745-18-06(D)	See b)(2)e.
f.	40 CFR Part 60, Subpart Db (40 CFR 60.40b – 60.49b)	See b)(2)d.

- (2) Additional Terms and Conditions
- a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for NO_x, PE, PM₁₀, SO₂, VOC, CO and lead. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1), which restricts the quality and quantity of #2 fuel oil combusted in emissions units B012, B013 and B014, combined:
- i. 16.01 tons NO_x/rolling, 12-month period;
 - ii. 2.64 tons PE/rolling, 12-month period;
 - iii. 2.12 tons PM₁₀/rolling, 12-month period;
 - iv. 10.40 tons SO₂/rolling 12-month period;
 - v. 0.45 ton VOC/ rolling, 12 month period;
 - vi. 13.46 tons CO/rolling, 12 month period; and
 - vii. 0.001 ton Pb/rolling, 12-month period.
- b. Visible particulate emissions while burning natural gas shall not exceed 20% opacity, as a six-minute average, except as provided by rule. The visible particulate emission limitation established by 40 CFR Subpart Db is more stringent than OAC rule 3745-17-07(A) during #2 fuel oil use.
- c. Visible particulate emissions while burning #2 fuel oil shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.
- d. The emission limitation specified by this rule is as stringent as the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- f. Each continuous NO_x monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. At least 45 days before commencing certification testing of the continuous NO_x 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 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

- g. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.
- h. The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit the PTE of emissions units B012, B013, and B014:
 - a. The maximum #2 fuel oil usage for emissions units B012, B013 and B014, combined, shall not exceed 1,626,086 gallons per year, based upon a rolling, 12-month summation of the monthly fuel usage. These emissions unit have been in operation for more than 12 months and as such, the permittee has existing records to generate the rolling, 12-month summation of #2 fuel oil usage; and
 - b. the sulfur content of the #2 fuel oil being combusted shall not exceed 0.09 percent by weight.
- (2) The #2 fuel oil combusted in this emissions unit shall only be #2 fuel oil, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils".
- (3) The permittee shall operate and maintain equipment predictive monitoring equipment and record the opacity of the particulate emissions from this emissions unit when combusting #2 fuel oil.
- (4) The permittee shall only burn natural gas or #2 fuel oil in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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

- (3) In lieu of the requirements of d)(2) for the sulfur content of #2 fuel oil, the permittee may keep records of fuel oil supplier certification, which shall include the following information:
 - a. The name of the oil supplier.
 - b. A statement from the oil supplier that the oil complies with the specifications under the definition of 'distillate oil' in 40 CFR 60.41c.
 - c. The sulfur content of the oil.
- (4) The permittee shall maintain monthly records of the following information:
 - a. the amount of #2 fuel oil burned, in gallons/month; and
 - b. the rolling, 12-month quantity of #2 fuel oil usage, in gallons, combined for emissions unit B012, B013 and B014.
- (5) The permittee shall install, operate, and maintain equipment to continuously monitor 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 Parts 60.

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

- a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
 - b. emissions of NO_x in all units of the applicable standard(s) in the appropriate averaging period;
 - c. results of quarterly cylinder gas audits;
 - d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - f. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;
 - g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;
 - h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; as well as,
 - i. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)g. and d)(5)h.
- (6) Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 for approval by the Ohio EPA, Central Office. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NO_x monitoring system meets the requirements of Performance Specification 2. 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.
- a. Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- (7) In lieu of installing a continuous emissions monitoring system (CEM) for NO_x, the permittee may elect to install a predictive emission monitoring system (PEMS) for the NO_x emissions. The PEMS must meet 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems' as written by the United States Environmental Protection Agency, and the proposed system shall be approved in writing by Ohio EPA prior to installation. At such time that a performance specification for PEMS is promulgated, the PEMS shall be required to meet the promulgated requirements.

After initial testing to assure the PEMS meets the 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems', or when available, the

promulgated performance specification, ongoing quality assurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendar quarters. RATA requirements are in addition to any and all PEMS manufacturer-suggested quality assurance/quality control procedures. RATA requirements shall include multi-load, multi-fuel (when applicable) testing. RATA testing shall be completed using the appropriate 40 CFR 60, Appendix A test methods (Methods 7E, 3A and 1-4 as necessary). RATA testing protocol shall be submitted to the Director (the Ohio EPA, Central Office) for approval prior to installation of the PEMS.

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

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

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

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

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- f. the reason (if known) and the corrective actions taken (if any) for each such event in d)(9)d. and d)(9)e.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month fuel oil usage limitation for this emissions unit; and;
 - ii. all exceedances of the #2 fuel oil sulfur restriction.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NOx monitoring system:
 - a. Pursuant to the monitoring, recordkeeping, 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 NOx emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known)

and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

- 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 and model number of the continuous NO_x and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - 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 continuous NO_x monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;
 - xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and
 - xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(3)b.xi. and e)(3)b.xii.

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 comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity monitoring system:
- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.
 - 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 and model number of the continuous opacity monitor;
 - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total operating time (hours) of the emissions unit;
 - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
 - vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
 - viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
 - ix. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.vii. and e)(4)b.viii.

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

* where no exceedance of the opacity limit has 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 quarterly EER report

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

(5) The owner or operator of each affected facility subject to the NO_x standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

- a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_x emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/ or tertiary air) and the level of excess air (i.e., flue gas O₂ level);
- b. Include the data and information that the owner or operator used to identify the relationship between NO_x emission rates and these operating conditions; and
- c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).

f) Testing Requirements

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

Emissions from Natural gas combustion:

a. Emission Limitations:

0.06 pound NO_x/MMBtu; 28.9 tons NO_x/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Initial compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO. The permittee shall demonstrate ongoing compliance with this emission limitation by PEMS.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitations:

0.06 pound CO/MMBtu; 28.9 tons CO/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A in emissions unit B012. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

c. Emission Limitations:

0.02 pound PE/MMBtu; 9.64 tons PE/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton.

Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

d. Emission Limitations:

0.0137 pound PM10/MMBtu; 6.6 tons PM10/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

e. Emission Limitations:

0.0006 pound SO₂/MMBtu; 0.29 tons SO₂/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

f. Emission Limitations:

0.003 pound VOC/MMBtu; 1.45 tons VOC/year

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 18, 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by a maximum heat input of 110 MMBtu/hour and a maximum operating schedule of 8,760 hours/year and dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/MMBtu limitation, compliance with the annual limitation shall also be demonstrated.

Emissions from #2 Fuel oil usage

g. Emission Limitations:

0.143 pound NO_x/MMBtu; 16.04 tons NO_x/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. The permittee shall demonstrate compliance with this emission limitation by PEMS. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

h. Emission Limitations:

0.12 pound CO/MMBtu; 13.46 tons CO/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. Compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

i. Emission Limitations:

0.02 pound PE/MMBtu; 2.24 tons PE/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

j. Emission Limitations:

0.019 pound PM10/MMBtu; 2.13 tons PM10/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated in accordance with Methods 1-4, 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

k. Emission Limitations:

0.004 pound VOC/MMBtu; 0.45 tons VOC/rolling, 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emissions testing conducted in accordance with Methods 1-4, 18 and 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA

approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the pound/MMBtu limitation by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, a heat content of 0.138 MMBtu/gallon for #2 fuel oil and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

I. Emission Limitations:

0.0926 pound SO₂/MMBtu; 10.40 ton SO₂/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

m. Emission Limitations:

0.0000089 pound Pb/MMBtu; 0.001 ton Pb/rolling 12-month period, combined for emissions unit B012, B013 and B014

Applicable Compliance Method:

The pound/MMBtu limitation is based on the burner manufacturer's guarantee. If required, compliance with the pound/MMBtu limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1-4 and 12 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The annual emission limitation was established by multiplying the AP-42 emission factor by the maximum #2 fuel oil restriction of 1,626,086 gallons/year, and dividing by 2,000 pounds/ton. Therefore, provided compliance with the pound/MMBtu limitation and the annual #2 fuel oil restriction are demonstrated [recordkeeping requirement d)(4)], compliance with the annual emission limitation shall also be demonstrated.

n. Emission Limitation:

Visible particulate emissions, while burning natural gas, shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emission limitation shall be determined in accordance with OAC rule 3745-17-03(B).

o. Emission Limitation:

Visible particulate emissions, while burning #2 fuel oil, shall not exceed 20% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method

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

- (2) Certification of the continuous NOx 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 Specifications 2; and ORC section 3704.03(I).

Initial certification of the CMC Solutions PEMs was granted in a letter dated June 11, 2010, by Ohio EPA, Central Office, Division of Air Pollution Control.

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.

g) Miscellaneous Requirements

- (1) None.