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

3/6/2013

Certified Mail

Gretchen Farnung
Battelle Memorial Institute
505 King Ave
Columbus, OH 43201

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0125040520
Permit Number: P0111495
Permit Type: Initial Installation
County: Franklin

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-CDO

Response to Comments

Facility ID:	0125040520
Facility Name:	Battelle Memorial Institute
Facility Description:	research
Facility Address:	505 King Ave Columbus, OH 43201 Franklin County
Permit:	P0111495, Permit-To-Install and Operate - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Columbus Dispatch on 02/02/2013. The comment period ended on 03/04/2013.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

a. Comment: None

b. Response: None

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Battelle Memorial Institute

Facility ID:	0125040520
Permit Number:	P0111495
Permit Type:	Initial Installation
Issued:	3/6/2013
Effective:	3/6/2013
Expiration:	8/13/2017

Division of Air Pollution Control
Permit-to-Install and Operate
for
Battelle Memorial Institute

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Authorization

Facility ID:	0125040520
Application Number(s):	A0045856
Permit Number:	P0111495
Permit Description:	Three 20.1 MMBtu/hr dual-fuel Thermogenics boilers (fired with natural gas with #2 fuel oil backup)
Permit Type:	Initial Installation
Permit Fee:	$1,200.00
Issue Date:	3/6/2013
Effective Date:	3/6/2013
Expiration Date:	8/13/2017

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Battelle Memorial Institute
505 King Ave
Columbus, OH 43201

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

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

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

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: P0111495
Permit Description: Three 20.1 MMBtu/hr dual-fuel Thermogenics boilers (fired with natural gas with #2 fuel oil backup)

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

Group Name: 20.1 mmBtu/h Boilers

Emissions Unit ID:	**B034**
Company Equipment ID:	Building 12 Thermogenics Boiler (B12-8)
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**B035**
Company Equipment ID:	Building 12 Thermogenics Boiler (B12-9)
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**B036**
Company Equipment ID:	Building 12 Thermogenics Boiler (B12-10)
Superseded Permit Number:	
General Permit Category andType:	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 takenby 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, Central 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 submitting[1] 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.

[1] Permittees 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. Emissions Unit Group -20.1 MMBtu/h Boilers: B034,B035,B036,

EU ID	Operations, Property and/or Equipment Description
B034	20.1 MMBtu/hr Dual-fuel Thermogenics Boiler
B035	20.1 MMBtu/hr Dual-fuel Thermogenics Boiler
B036	20.1 MMBtu/hr Dual-fuel Thermogenics 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)d., b(2)e, b(2)f, d)(2), d(4), and e(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC rule 3704.03(T)	Emissions from each source, when firing no. 2 fuel oil, shall not exceed: 0.14 lb nitrogen oxides (NOx)/MMBtu, 0.56lb sulfur dioxide (SO2)/MMBtu. See b)(2)d.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Emissions from each source, when firing natural gas shall not exceed: 0.014 lb/MMBtu particulate emissions (PE) and 1.1 tons per year (TPY). 0.10lb/MMBtu nitrogen oxides (NOx) 0.011 lb/MMBtu organic compound (OC)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and 0.74 TPY. 0.082 lb/MMBtu carbon monoxide (CO) and 6.25 TPY. See b)(2)a.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
d.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V)	SO2 emissions when firing No. 2 fuel oil for emissions units B020, B021, B026, B027, B029, B031, B032, B033,B034, B035, and B036combined shall not exceed, as a rolling 12-month summation, 21.2 tons per year. NOx emissions for each emissions unitsB034, B035, and B036 shall not exceed 24.7 tons per year combined. See b)(2)e and b)(2)f.
e.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60, Subpart Dc.
f.	OAC rule 3745-17-10(B)(1)	0.020 pound PE per MMBtu of actual heat inputwhen firing natural gas or no. 2 fuel oil in each source.
g.	OAC rule 3745-18-06(D)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC rule 3704.03(T).
h.	40 CFR Part 60, Subpart Dc	Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6 minute period per hour of not more than 27% opacity. See b)(2)c.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that

BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to organic compound (OC), particulate matter (PM), and carbon monoxide (CO) emissions from these air contaminant sources since the uncontrolled potential to emit for each pollutant is less than 10 tons/year.

c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).

d. The lb/MMBtu actual heat input and tons per year emission limitations, except for NOx and SO2, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.

e. The maximum annual operating hours for emissions units B034, B035, and B036shall not exceed 7350 for each emission unit, based upon a rolling, 12-month summation of the operating hours. To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the summation of operating hours specified in the following table:

Month	Maximum Allowable Operating Hours
1	730
1-2	1460
1-3	2049
1-4	2638
1-5	3227
1-6	3816
1-7	4405
1-8	4994
1-9	5583

Month	Maximum Allowable Operating Hours
1-10	6172
1-11	6761
1-12	7350

f. The maximum annual facility wide No. 2 fuel oil usage rate shall not exceed 540,000 gallons per rolling, 12-month period. To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the No. 2 fuel oil usage levels specified in the following table:

Month	Maximum Allowable Cumulative Usage (gallons)
1	90,000
1-2	180,000
1-3	270,000
1-4	360,000
1-5	450,000
1-6	540,000
1-7	540,000
1-8	540,000
1-9	540,000
1-10	540,000
1-11	540,000
1-12	540,000

After the first 12 calendar months of operation, compliance with the annual No. 2 fuel oil usage limitation shall be based upon a rolling, 12-month summation of the usage rates.

c) Operational Restrictions

(1) The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

(2) The quality of No. 2 fuel oil received for burning in thes emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.56 lb/mmBtu of actual heat input and the sulfur content limitation for No. 2 fuel oil of less than or equal to 0.5 weight per cent sulfur.

d) Monitoring and/or Recordkeeping Requirements

(1) The permitteeshall record and maintain records of the amounts of each fuel combusted during each day.

(2) The permittee shall maintain monthly records of the following information for emissions units B034, B035, and B036:

a. the operating hours for each month; and

b. the rolling, 12-month summation of the operating hours.

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

a. Alternative 1:

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

b. Alternative 2:

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

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and

Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

[OAC rules 3745-18-04(E)(3) and 3745-18-04(I)]

(4) The permittee shall maintain monthly records of the following information for each emissions unit:

a. The total number of gallons of No. 2 fuel oil used each boiler for each month.

b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the gallons of No. 2 fuel oil used.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative fuel usage rate for each calendar month.

(5) For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in these emissions units.

e) Reporting Requirements

(1) 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 restriction on the hours of operation for emissions units B034, B035, and B036;

ii. any exceedance of the allowable sulfur dioxide emission limitation, pounds sulfur dioxide/MMBtu actual heat input; and

iii. any deviation from the minimum heat content limitation on the oil Btu/gallon; and

iv. any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil; and

v. any exceedance of the allowable annual No. 2 fuel oil usage limitation; and

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 or Ohio EPA, Central District Office, Division of Air Pollution Control.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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.

(3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

(4) The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

Source Numbers	Source Description	NSPS Regulation (Subpart)
B034, B035, and B036	20.1 MMBtu/hr Boilers	Subpart Dc

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

i. construction date (no later than 30 days after such date);

ii. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

iii. actual start-up date (within 15 days after such date); and

iv. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio EPA
DAPC- Permit Management Unit
Lazarus Government Center
50 West Town Street, Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA
Central District Office
Division of Air Pollution Control
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

(5) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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 Units B034, B035, and B036

a. Emission Limitation:

0.14 lb nitrogen oxides (NOx)/MMBtu

Applicable Compliance Method:

For No. 2 fuel oil, the emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/MMBtu emission limitation may be determined by converting the 20 lbsNOx/1000gal emission factor into lbNOx/MMBtu by dividing by 140 MMBtu/1000gal.

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

b. Emission Limitation:

0.56lb sulfur dioxide (SO2)/MMBtu

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in d(2) of this permit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

c. Emission Limitation:

0.014 lb/MMBtu particulate emissions (PE) and 1.1 tons per year (TPY)

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/MMBtu emission limitation may be determined by converting the 2 lbs PE/1000gal emission factor into lbs PE/MMBtu by dividing by 140 MMBtu/1000gal. Compliance with the annual emission limitation may be demonstrated by multiplying the lb PE/MMBtu value by the maximum rated heat input capacity of the emissions unit (in MMBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

Compliance with the annual limitations shall be based upon the records maintained in section d)(3) and the emission calculation methodology referenced above.

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

d. Emission Limitation:

0.10lb/MMBtu nitrogen oxides (NOx)

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/MMBtu emission limitation may be determined by converting the 100 lbsNOx/1,000,000 scf emission factor into lbNOx/MMBtu by dividing by 1,020 Btu/scf. Compliance with the annual emission limitation may be demonstrated by multiplying the lbNOx/MMBtu value by the maximum rated heat input capacity of the emissions unit (in MMBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

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

e. Emission Limitation:

NOx emissions for emissions units B034, B035, and B036combined shall not exceed, as a rolling 12-month summation, 24.7 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in (d)(2) of this permit.

f. Emission Limitation:

0.011 lb/MMBtu organic compound (OC) and 0.74 TPY.

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/MMBtu emission limitation may be determined by converting the 11 lbs TOC/1,000,000 scf emission factor into lb TOC/MMBtu by dividing by 1,020 Btu/scf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb TOC/MMBtu value by the maximum rated heat input capacity of the emissions unit (in MMBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

Compliance with the annual limitations shall be based upon the records maintained in section d)(3) and the emission calculation methodology referenced above.

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

g. Emission Limitation:

0.082 lb/MMBtu carbon monoxide (CO) and 6.25 TPY.

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42,"Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table1.4-1 (7/98). Compliance with the lb/MMBtu emission limitation may bedetermined by converting the 84 lbs CO/1,000,000 scf emission factor into lbCO/MMBtu by dividing by 1,020 Btu/scf. Compliance with the annual emissionlimitation may be demonstrated by multiplying the lb CO/MMBtu value by themaximum rated heat input capacity of the emissions unit (in MMBtu/hr), thenmultiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

Compliance with the annual limitations shall be based upon the records maintained in section d)(3) and the emission calculation methodology referenced above.

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

h. Emission Limitation:

SO2 emissions when firing No. 2 fuel oil for emissions units B020, B021, B026, B027, B029, B031, B032, B033, B034, B035, and B036combined shall not exceed, as a rolling 12-month summation, 21.2 tons per year.

Applicable Compliance Method:

This limitation is based on maximum emissions of SO2 from combustion of 540,000 gallons of fuel oil in these emission units.

540,000 gallons x 78.5 lb/1000 gallons (AP42 Table 1.3-1) x 1 ton/2000 lbs = 21.2 tpy SO2

Compliance shall be based upon the record keeping requirements specified in d(4) of this permit.

i. Emission Limitation:

0.020 pound PE per MMBtu of actual heat inputwhen firing natural gas or no. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

j. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity, as a six-minute average, except for one 6 minute period per hour of not more than 27% opacity.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

g) Miscellaneous Requirements

(1) None.