



Environmental Protection Agency

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

10/11/2012

Mr. JOHN NEWBY
Fives North American Combustion, Incorporated
4455 E 71ST ST
CLEVELAND, OH 44105

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1318173445
Permit Number: P0110707
Permit Type: OAC Chapter 3745-31 Modification
County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	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:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Plain Dealer. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall Permit Review/Development Section Ohio EPA, DAPC 122 South Front Street Columbus, Ohio 43215	and	Cleveland Division of Air Quality 2nd Floor 75 Erieview Plaza Cleveland, OH 44114
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Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297.

Sincerely,

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

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



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination (FEPTIO to avoid PSD, NNSR, and Title V)

Netting Determination

2. Source Description:

Fives North American produces boilers of all sizes. The facility tests the boiler burners in many test locations within the facility over a range of Btu values. The upper limit has been reduced to 100 MMBtu/hr. Most of the burners are just tested and are not intended to produce steam. P002 produces hot air for testing of P003. The burners are only operational for a fraction of the work day as the main purpose of the facility is to manufacture the complete boiler. The boilers are then painted using three spray booths (K001 – K003). The facility is a synthetic minor with established federally enforceable restrictions for HAPs and VOCs for K001 – K003 combined and NO_x and CO for the burners. The facility has requested a modification to be able to use #2 and #6 fuel oil along with natural gas in some of the burners. Separate FEPTIO permits are being processed for these burner emissions units, with B001 and B010 as a Chapter 31 modification, and B014 and P003 as an initial permit.

This FEPTIO permit is for emissions units B001 and B010. A synthetic minor PTI (13-3101) was issued on October 2, 1996 for emissions unit B010 to establish limits for NO_x and CO from natural gas usage. A PTO was issued for B001 on Sept. 16, 1997 because the emission unit was installed prior to 1974, but with the change in fuel, BAT is now necessary. The proposed use of the fuel oil increased their potential SO₂ emissions so revised restrictions are needed for natural gas and fuel oil to avoid PSD, NNSR and Title V. The emissions units have been grouped and will be permitted as a renewal for K003 (P0095325), initial FEPTIO (P0110008) for K002, K003, B014 and P003, a Chapter 31 modification for B001 and B010 (P0110707), and an initial PTIO for B013 and P002 (P0110681). The facility has also permitted a new emergency electric generator with a PBR.

3. Facility Emissions and Attainment Status:

Cuyahoga is now non-attainment for ozone, PM_{2.5}, and partial non-attainment for lead. VOC's and NO_x have not increased in emission units B001 and B010 or facility wide. PM increased from the use of fuel oil, but the increase was not greater than 10 TPY. The fuel oil increased the SO₂ emissions but the fuel oil limitations keep the emissions below the modeling threshold of 25 TPY.

4. Source Emissions:

Emissions from these emissions units (B001 and B010) are PM, NO_x, CO, CO₂e and SO₂. FEPTIO permits P0110707 and P0110008 will restrict the facility-wide fuel usage to using no more than 750 mmcf of natural gas per rolling, 12-month summation and no more than 300,000 gallons of #2 and #6 fuel oil per rolling, 12-month summation. These limitations will result in facility emissions of 37.5 tons/year of NO_x, 31.5 tons/year of CO, 2.85 tons/year of PM, and 23.6 tons/year of SO₂. These restrictions will also keep CO₂e emissions below 100,000 tons/yr.



In addition, the facility has proposed to restrict facility wide single HAP emissions to less than 9.9 tons per rolling 12-month period and less than 24.9 tons per rolling, 12-month period. The facility will maintain monthly records of the amount of coatings employed in K001 – K003 along with the corresponding HAP content to determine the montly and rolling, 12-month summation of HAP emissions. The facility will also maintain records of the amount of fuel burned to determine the monthly and rolling, 12-month summation of HAPS from fuel combustion.

5. Conclusion:

Through the combination of facility-wide HAP restrictions and fuel usage restrictions as a rolling, 12-month summation, HAP emissions will be restricted to less than 9.9 tpy for each single HAP and 24.9 tpy for combined HAPs, each criteria pollutant will be restricted below 100 tpy, and CO2e will be restricted below 100,000 tpy. Therefore, this facility is not subject to Title V or MACT requirements. Furthermore, the facility-wide emission limitations are below the major modification thresholds for both PSD and Nonattainment NSR.

6. Please provide additional notes or comments as necessary:

None.

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

Table with 2 columns: Pollutant and Tons Per Year. Rows include PM (4.71), NOx (45.75), CO (32.25), SO2 (23.83), CO2e (48,669), VOC/HAP (24.96), and Single HAP (9.9).

PUBLIC NOTICE

10/11/2012 Issuance of Draft Air Pollution Permit-To-Install and Operate

Fives North American Combustion, Incorporated

4455 EAST 71ST ST,

Cleveland, OH 44105

Cuyahoga County

FACILITY DESC.: Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers

PERMIT #: P0110707

PERMIT TYPE: OAC Chapter 3745-31 Modification

PERMIT DESC: FEPTIO Chapter 31 modification for two test burners (B001, B010) 34.2 MMBtu/hr or less and 100 MMBtu/hr or less to add #2 and #6 fuel oil along with natural gas. Limit taken on fuel oil to limit SO2 and natural gas to limit CO2e (B010 synthetic minor permit 13-3101 issued 10/2/1996)

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

Ohio

**Environmental
Protection Agency**

DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Fives North American Combustion, Incorporated**

Facility ID:	1318173445
Permit Number:	P0110707
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	10/11/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
Fives North American Combustion, Incorporated

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Authorization

Facility ID: 1318173445
Application Number(s): A0045380
Permit Number: P0110707
Permit Description: FEPTIO Chapter 31 modification for two test burners (B001, B010) 34.2 MMBtu/hr or less and 100 MMBtu/hr or less to add #2 and #6 fuel oil along with natural gas. Limit taken on fuel oil to limit SO₂ and natural gas to limit CO₂e (B010 synthetic minor permit 13-3101 issued 10/2/1996)
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$400.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 10/11/2012
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Fives North American Combustion, Incorporated
4455 EAST 71ST ST
Cleveland, OH 44105

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:

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

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: P0110707

Permit Description: FEPTIO Chapter 31 modification for two test burners (B001, B010) 34.2 MMBtu/hr or less and 100 MMBtu/hr or less to add #2 and #6 fuel oil along with natural gas. Limit taken on fuel oil to limit SO2 and natural gas to limit CO2e (B010 synthetic minor permit 13-3101 issued 10/2/1996)

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

Emissions Unit ID:	B001
Company Equipment ID:	C1
Superseded Permit Number:	P0095324
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B010
Company Equipment ID:	OB1
Superseded Permit Number:	13-3101
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 Cleveland Division of Air Quality 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) 2.(a) – 2.(e).

2. Facility-wide Fuel Restrictions

a) 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, Applicable Emissions Limitations/Control Measures. Row 1: a. OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid PSD, NNSR, and Title V. See c)(2), d)(1), and d)(2) below.

(2) Additional Terms and Conditions

- a. The maximum annual NOx emissions generated at this facility from fuel burning (see a)(2)f.) shall not exceed 45.75 tons per year, based on a rolling, 12-month summation of emissions.
b. The maximum annual CO emissions generated at this facility from fuel burning (see a)(2)f.) shall not exceed 32.25 tons per year, based on a rolling, 12-month summation of emissions.
c. The maximum annual PM emissions generated at this facility from fuel burning (see a)(2)g.) shall not exceed 4.94tons per year, based on a rolling, 12-month summation of emissions.



- d. The maximum annual SO2 emissions generated at this facility from fuel burning (see a)(2)g.) shall not exceed 23.83 tons per year, based on a rolling, 12-month summation of emissions.
e. The maximum annual VOC emissions generated at this facility from fuel burning (see a)(2)f.) shall not exceed 2.26 tons per year, based on a rolling, 12-month summation of emissions.
f. The facility-wide natural gas fuel usage restrictions apply to all emissions units that burn natural gas at this facility including permitted emissions units, De Minimis, and OAC rule 3745-31-03(A)(1) exempt emissions units.
g. The facility-wide #2 and #6 fuel oil usage restrictions apply to permitted emissions units B010, B001, B014, and P003 and De Minimis and OAC rule 3745-31-02(A)(1) exempt emissions units.

b) Operational Restrictions

(1) This permit establishes the following federally enforceable emission limitations for fuel burning emissions units B001, B010, B013, B014, P002 and P003:

- a. The maximum annual natural gas usage for all fuel burning units at the facility shall not exceed 750 mmcf, based upon a rolling, 12-month summation of natural gas usage. See a)(2)f.

These emissions units have been in operations for more than 12 months using natural gas and, as such, the permittee has existing records to generate the rolling, 12-month summation of the natural gas usage, upon issuance of this permit.

(2) This permit establishes the following federally enforceable emission limitations for purposes of avoiding applicability of Title V regulations for emissions units B001, B010, B014 and P003:

- a. The maximum annual fuel oil usage for the above emissions units and exempt units using #2 fuel, shall not exceed 300,000 gallons #2 and #6 fuel oil combined per rolling, 12-month period. See a)(2)g.
b. To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the fuel usage levels specified in the following table:

Table with 2 columns: Month(s) and Maximum Allowable Cumulative Usage of #2 and #6 fuel oil combined. Rows include 1, 1-2, 1-3, and 1-4 months.



Table with 2 columns: Year (1-5 to 1-12) and Fuel Usage (130,300 to 300,000)

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual fuel usage limitation for fuel oil shall be based upon a rolling, 12-month summation of the monthly fuel oil usage amounts.

c) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the fuel burning operations at this facility:
a. the amount, in mmcf, of natural gas burned;
b. the rolling, 12-month summation, in mmcf/yr, of natural gas burned;
c. the amount, in gallons, of fuel oil burned;
d. the rolling, 12-month summation, in gals/yr, of fuel oil burned.
(2) The permittee shall calculate and record the rolling, 12-month emission rate for NOx, CO, PM, and SO2 emissions in accordance with e)(1) below.

d) Reporting Requirements

- (1) 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.
(2) The permittee shall submit quarterly deviation (excursion) reports for the facility 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. an identification for each month during which the rolling, 12-month natural gas usage exceeded 750 mmcf/yr based on a rolling, 12-month summation; and
 - ii. an identification for each month during which the rolling, 12-month fuel usage exceeded 300,000 gallons/yr based on a rolling, 12-month summation.
- 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 Cleveland Division of Air Quality.

e) Testing Requirements

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

- a. Emission Limitation:

4.94 tons PM per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual emission shall be determined by multiplying the AP-42 Chpt. 1.4 emission factor for PM (7.6 lbs PM/mmcf) by the mmcf of natural gas used on a rolling, 12 month period and divide by 2000 lbs/ton. For fuel oil, multiply the AP-42 Chpt. 1.3 emission factor (13.9 lbs PM/1000 gals) by the actual gallons per rolling, 12-months and divide by 2000 lbs/yr. Sum the emissions from natural gas and fuel oil to determine the total.

- b. Emission Limitation:

45.75 tons NOx facility wide per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual emission shall be determined by multiplying the AP-42 emission factor for NOx from Chpt. 1.4 (100 lbsNOx/mmcf) by the mmcf of

natural gas used on a rolling, 12 month period and divide by 2000 lbs/ton. For fuel oil, multiply the AP-42 Chpt. 1.3 emission factor (55 lbsNO_x/1000 gals) by the actual gallons per rolling, 12-months and divide by 2000 lbs/yr. Sum the emissions from natural gas and fuel oil to determine the total.

c. Emission Limitation:

32.25 tons CO facility wide per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual emission shall be determined by multiplying the AP-42 Chpt 1.4 emission factor (84 lbs CO/mmcf) by the mmcf of natural gas used on a rolling, 12 month period and divide by 2000 lbs/ton. For fuel oil, multiply the AP-42 Chpt. 1.3 emission factor (5 lbs CO/1000 gals) by the actual gallons per rolling, 12-months and divide by 2000 lbs/yr. Sum the emissions from natural gas and fuel oil to determine the total.

d. Emission Limitation:

23.8 tons SO₂ per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual emission shall be determined by multiplying the AP-42 Chpt. 1.4 emission factor (0.6 lb SO₂/mmcf) by the mmcf of natural gas used on a rolling, 12 month period and divide by 2000 lbs/ton. For fuel oil, multiply the AP-42 Chpt. 1.3 emission factor (157(S) lbs SO₂/1000 gals) by the actual gallons per rolling, 12-months and divide by 2000 lbs/yr. Sum the emissions from natural gas and fuel oil to determine the total.

e. Emission Limitation:

2.26 tons VOC per rolling, 12-month period facility wide

Applicable Compliance Method:

Compliance with the annual emission shall be determined by multiplying the AP-42 Chpt. 1.4 emission factor (5.5 lb VOC/mmcf) by the mmcf of natural gas used on a rolling, 12 month period and divide by 2000 lbs/ton. For fuel oil, multiply the AP-42 Chpt. 1.3 emission factor (0.76 lbs VOC/1000 gals) by the actual gallons per rolling, 12-months and divide by 2000 lbs/yr. Sum the emissions from natural gas and fuel oil to determine the total.

C. Emissions Unit Terms and Conditions



1. B001, C1

Operations, Property and/or Equipment Description:

Test furnace with recuperator using natural gas (34.2 mmBtu/hr), and distillate oil or #6 fuel oil (20 mmBtu/hr).

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., c)(1), d)(1), and d)(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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A) with PM, NOx, CO, and SO2 emissions limits. Row b: OAC rule 3745-31-05(D)(1)(b) and FEPTIO to avoid PSD, NNSR, and Title V, with reference to Section B.



Table with 3 columns: Rule/Requirement, Emissions Limitation/Control Measure. Rows include OAC 3745-17-10(C), OAC 3745-17-07(A), and OAC rule 3745-18-06(E).

(2) Additional Terms and Conditions

a. There is no applicable SO2 emission limit from OAC rule 3745-18-06 since no process weight rate can be determined.

c) Operational Restrictions

(1) See Section B for fuel restrictions.

(2) The quality of oil burned in this emissions unit shall meet the following specifications on an "as-received" basis:

- i. a sulfur content less than 1.0% by weight; and
ii. greater than 137,000 (#2) and 151,000 (#6) Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the facility wide cubic feet of natural gas burned for all emission units combined:

- a. the natural gas usage for each month, in cubic feet; and
b. the rolling, 12-month summation of the natural gas usage rate, in million cubic feet.

(2) The permittee shall maintain monthly records of the facility wide gallons of #2 and #6 fuel oil used for the emissions units burning fuel oil combined (B001, B010, B014 and P003 and exempt units using #2 fuel):

- a. the fuel oil usage for each month, in gallons; and
b. the rolling, 12-month summation of the fuel oil usage rate, in gallons.

- (3) 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 or 6), 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.

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.

- (4) The permittee shall perform daily checks when burning #6 fuel oil, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the color of the emissions;
 - whether the emissions are representative of normal operations;
 - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - the total duration of any visible emissions incident; and
 - any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d)(4) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) 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.

- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(4) above:
- all days during which any visible particulate emissions were observed from the stack serving this emissions unit when burning #6 fuel oil; and
 - any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) 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.
- f) Testing Requirements
- (1) Compliance with the emissions limitations and/or control requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
1.84 lbs PM/hr

Applicable Compliance Method:
Compliance with this emission limitation may be determined based on the worst case fuel - #6 fuel oil. The hourly emission limitation was developed by multiplying the mmBtu/hr of the burner by the AP-42 emission factor of 13.9 lbs PM/1000 gals and divide by 151 mmBtu/1000 gals.

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and 202.
 - Emission Limitation:
7.28 lbsNOx/hr

Applicable Compliance Method:
The worst case fuel for this pollutant is #6 fuel oil on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.3 (revised 5/10) of 55 lbs/1000 gallon of fuel oil by the hourly heat input of the burner, 20 mmBtu per hour, and dividing by a heating value of 151 mmBtu/1000 gal.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation by testing in accordance with Methods 1-4 and 7 of 40, CFR, Part 60, Appendix A.

c. Emission Limitation:

2.82 lbs CO/hr

Applicable Compliance Method:

The worst case fuel for this pollutant is natural gas on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (revised 5/10) of 84 lbs/mmcf by the hourly heat input of the burner, in mmBtu per hour, and dividing by a heating value of 1020 mmBtu/mmcf.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation by testing in accordance with Methods 1-4 and 10 of 40, CFR, Part 60, Appendix A.

d. Emission Limitation:

20.79 lbs SO₂/hr

Applicable Compliance Method:

The worst case fuel for this pollutant is #6 fuel oil on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.3 (revised 5/10) of 157(S) lbs/1000 gallon of fuel oil (sulfur at 1%) by the hourly heat input of the burner, 20 mmBtu per hour, and dividing by a heating value of 151 mmBtu/1000 gal.

If required, the permittee shall demonstrate compliance with the hourly allowable SO₂ emission limitation by testing in accordance with Methods 1-4 and 6 of 40, CFR, Part 60, Appendix A.

e. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) This emissions unit was installed in 1968 but fuel oil will now be used in the emission unit resulting in increased emissions.



2. B010, OB1

Operations, Property and/or Equipment Description:

Open burner testing area for natural gas, distillate oil or #6 fuel oil burners from 6 to 100 mmBtu/hr

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., c)(1), d)(1), and d)(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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC 3745-31-05(A)(3), PTI 13-3101 issued final 10/2/1996. Emissions limits for PM, NOx, CO, and SO2, plus a note about OAC rule 3745-17-07 and 3745-31-05(D).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid PSD, NNSR, and Title V.	See Section B.
b.	OAC 3745-17-10(C)	The particulate emission limit from this rule is less stringent than the particulate emission limit established under OAC rule 3745-31-05(A)(3).
c.	OAC 3745-17-07(A)	Visible particulate emissions shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
d	OAC rule 3745-18-06(E)	See b)(2)a. below.

(2) Additional Terms and Conditions

a. There is no applicable SO₂ emission limit from OAC rule 3745-18-06 since no process weight rate can be determined.

c) Operational Restrictions

(1) See Section B for fuel restrictions.

(2) The quality of oil burned in this emissions unit shall meet the following specifications on an “as-received” basis:

- i. a sulfur content less than 1.0% by weight; and
- ii. greater than 137,000 (#2) and 151,000 (#6) Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the facility wide cubic feet of natural gas burned for all emission units combined:

- a. the natural gas usage for each month, in cubic feet; and
- b. the rolling, 12-month summation of the natural gas usage rate, in million cubic feet.

- (2) The permittee shall maintain monthly records of the facility wide gallons of #2 and #6 fuel oil used for the emissions units burning fuel oil combined (B001, B010, B014 and P003 and exempt units using #2 fuel):
- a. the fuel oil usage for each month, in gallons; and
 - b. the rolling, 12-month summation of the fuel oil usage rate, in gallons.
- (3) 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 or 6), 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.

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.

- (4) The permittee shall perform daily checks when burning #6 fuel oil, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d)(4) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that

no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) 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.
- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(4) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit when burning #6 fuel oil; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) 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.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions shall not exceed 0.17 lb PM/mmBtu when burning fuel oil

Applicable Compliance Method:

Compliance with the particulate matter emission limitation may be determined by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.3 (revised 5/10) for #6 fuel oil of 13.9 lbs/1000 gallon of fuel oil* and dividing by a heating value of 151 mmBtu/1000 gal.

*13.9 lbs/1000 gallons = $(9.19(S) + 3.22)\text{lbs}_{\text{filterable}}/\text{gal} + 1.5 \text{ lbs}_{\text{condensable}}/\text{gal}$ where (S) = the sulfur content. The average sulfur content used is 1.0% or less.

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and 202.

b. Emission Limitation:

9.20 lbs PM/hr

Applicable Compliance Method:

Compliance with this emission limitation may be determined based on the worst case fuel - #6 fuel oil. The hourly emission limitation was developed by multiplying the mmBtu/hr of the burner by the AP-42 emission factor of 13.9 lbs PM/1000 gals and divide by 151 mmBtu/1000 gals.

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and 202.

c. Emission Limitation:

36.4 lbsNOx/hr

Applicable Compliance Method:

The worst case fuel for this pollutant is #6 fuel oil on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.3 (revised 5/10) of 55 lbs/1000 gallon of fuel oil by the hourly heat input of the burner, in mmBtu per hour, and dividing by a heating value of 151 mmBtu/1000 gal.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation by testing in accordance with Methods 1-4 and 7 of 40, CFR, Part 60, Appendix A.

d. Emission Limitation:

8.23 lbs CO/hr

Applicable Compliance Method:

The worst case fuel for this pollutant is natural gas on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (revised 5/10) of 84 lbs/mmcf by the hourly heat input of the burner, in mmBtu per hour, and dividing by a heating value of 1020 mmBtu/mmcf.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation by testing in accordance with Methods 1-4 and 10 of 40, CFR, Part 60, Appendix A.



e. Emission Limitation:

104 lbs/hr SO₂

Applicable Compliance Method:

The worst case fuel for this pollutant is #6 fuel oil on an hourly basis and the emission limitation was established based on the emission factor for that fuel. The hourly emission limitation was developed by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.3 (revised 5/10) of 157(S) lbs/1000 gallon of fuel oil (sulfur at 1%) by the hourly heat input of the burner, in mmBtu per hour, and dividing by a heating value of 151 mmBtu/1000 gal.

If required, the permittee shall demonstrate compliance with the hourly allowable SO₂ emission limitation by testing in accordance with Methods 1-4 and 6 of 40, CFR, Part 60, Appendix A.

f. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.