



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/26/2010

Dennis Koshmider
HOLMES BY-PRODUCTS INC.
3175 TWP RD 411
Route 5
MILLERSBURG, OH 44654

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

Facility ID: 0238000004
Permit Number: P0106368
Permit Type: Administrative Modification
County: Holmes

Certified Mail

No	TOXIC REVIEW
No	PSD
No	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, Holmes County Hub. 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 Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087

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 Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA-NEDO



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: (B007) 30 mmBtu/hr wood or coal-fired boiler with a cyclone that is vented to a baghouse to control particulate emissions
3. Facility Emissions and Attainment Status: The facility is classified as a synthetic minor source to limit applicability to the Title V operating permit program. There is a current restriction on two boilers (B006 & B007) to limit the potential to emit (PTE) sulfur dioxide (SO₂) emissions to 99.5 tons SO₂ per rolling 12-month period. The facility is a minor source of hazardous air pollutants (HAPs); see the evaluation of the current facility PTE in Exhibit 1 – Facility-wide PTE 6-10 Versions.pdf in “OC EF, BAT Search & BAT cost analysis.pdf.” Current PTE are 43.58 tons/yr of particulate emissions (PE), no more than 39.55 tons/yr of volatile organic compound (VOCs) and 0.01 tons/yr of lead (Pb), which designate it as a minor source. The prohibition on simultaneous operation of B006 in a PTO, issued 2/16/06, and B007 in a FESOP, issued 11/05/03, has the affect of a restricted PTE of 78.84 tons/yr of carbon monoxide (CO) and 64.39 tons/yr of nitrogen oxides (NO_x).

The facility is located in Millersburg, in Holmes County, which is in attainment status with the federal 8-hour ozone standard, in attainment status with the PM₁₀ standard, and is in attainment status for PM_{2.5}, particulate matter which has a maximum diameter of 2.5 micrometers. The entire State of Ohio is attainment for SO₂, NO_x, CO and lead.

4. Source Emissions: The design of the sawdust feed line to B007 as well as the steam line configuration currently allows operation of only one boiler at a time, either B006 or B007. The saw dust feed line(s) and steam line(s) will be re-configured to allow simultaneous operation of B006 and B007. The administrative modification of B007 will no longer have a restriction on the simultaneous operation of B006 & B007.

Removing the restriction on the simultaneous operation of B006 & B007 would increase the facility-wide PTE to 61.10 ton PE/yr, 75.53 tons of organic compounds (OCs) per year and 40.49 tons of volatile organic compounds (VOCs) per year; each of which are at minor source levels below the 100 tons/yr threshold for Title V applicability. Simultaneous operation of B006 and B007 would increase the following criteria pollutants to major Title V source levels: 107.31 tons NO_x/yr, 131.40 tons CO/yr and 146.83 tons SO₂/yr. See “Uncontrolled/Unlimited PTE based on 2010 Proposed Changes/Additions to Plant and no synthetic minor strategy” on page 2 of “Facility-wide PTE.pdf”. Since current and proposed changes would not increase to or beyond the 250 ton/yr major source threshold, the facility would maintain minor source status for applicability to the Prevention of Significant Deterioration (PSD) rules.

Synthetic Minor Strategy - The application includes proposed restrictions to keep all criteria pollutant emissions below 100 TPY; see “Synthetic Minor Strategy for Boilers B006 and B007” in attachment “Synthetic Minor Strategy/facility wide PTE analysis” of application# A0039514. The application for B006 will be processed as a Federally Enforceable Permit to Install/Operate to include the following proposed restrictions to limit the emissions of SO₂, NO_x and CO from B006 and B007:



- a. If no coal is burned at B007 during a rolling 12-month period, then the operating hours from B006 and B007 combined shall be no more than 12,000 hrs per rolling 12-month period.

The highest minor PTE levels of 98.28 tons CO/yr and 80.26 tons NOx would be generated when the maximum combined operating hours from B006 and B007 are 12,000 hrs/rolling 12-months and no coal is burned at B007; see "Boiler Scenario 3.pdf." This scenario proposed wood combustion at both boilers. It's the most probable scenario considering the applicant's current practices and the availability of wood waste from the wood products industry in Holmes County.

- b. If coal is burned at B007 during a rolling 12-month period, then:
i. B007 is limited to no more than 3,240 hrs per rolling 12-month period of coal combustion; and
ii. B006 is limited to no more than 3,240 hrs per rolling 12-month period of no. 2 (distillate) oil combustion.

The highest minor PTE levels of 98.19 tons SO2/yr would be generated whenever coal is combusted at B007, provided that no more than 3,240 hrs/rolling 12-months of coal combustion are allowed. This proposal is more stringent than the current restriction of no more than 4,050 hrs/rolling 12-months of coal combustion at B007. The highest, hourly SO2 emissions at B006 would be generated with the proposed usage of a new fuel, distillate oil but would be restricted to no more 3,240 hrs/rolling 12-months; see "Boiler Scenario 2.pdf."

- 5. Conclusion: The proposed operating restrictions for B006 and B007 will keep all criteria pollutant emissions below the Title V major source 100 ton/year threshold. The applicant has proposed to take operating hour restrictions at B006 and B007 to restrict facility-wide emissions to 98.28 tons CO/year, 80.26 tons NOx/year, and 98.19 tons SO2/year. See "PTE with Proposed Synthetic Minor Strategy.pdf" on p. 3 of "Facility-wide PTE.pdf."
6. Please provide additional notes or comments as necessary: [NOTE: In the file "Facility-wide PTE.pdf" the uncontrolled VOC potentials from the current rendering operations (P001) feather rendering and (P002) offal rendering no. 1 are 6.55 tons/year and 30.22 tons/year, respectively. The VOC potential emissions values from P001 and P002 do not consider the use of odor control measures, required by the 8/04/1994 Ohio EPA Director's Findings and Orders. Likewise, PTIO# P0106075, issued 10/04/10, requires the use of VOC/OC control measures which also control odors. The uncontrolled VOC/OC emissions from (P003) offal rendering no. 2 rather than the controlled VOC/OC emissions are included in the file "Facility-wide PTE.pdf."]

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

Table with 2 columns: Pollutant, Tons Per Year. Rows: PE (26.28^A), SO2 (79.83^A)

Note A – Potential to Emit, considering the proposed operating hour restrictions. B007 does not have annual limits for the PE rate nor for the SO2 emissions rate.

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
HOLMES BY-PRODUCTS INC.

Issue Date: 11/26/2010

Permit Number: P0106368

Permit Type: Administrative Modification

Permit Description: Administrative modification to remove restriction that allows operation of one boiler at a time for B007 & B006. More stringent restrictions on operating hours to decrease NOx emissions restricted potential emissions to maintain synthetic minor status.

Facility ID: 0238000004

Facility Location: HOLMES BY-PRODUCTS INC.
3175 TWP RD 411,
Millersburg, OH 44654

Facility Description: Other Animal Food Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Christine McPhee at Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 43087 or (330)425-9171. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
HOLMES BY-PRODUCTS INC.**

Facility ID: 0238000004
Permit Number: P0106368
Permit Type: Administrative Modification
Issued: 11/26/2010
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
HOLMES BY-PRODUCTS INC.

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Authorization

Facility ID: 0238000004

Application Number(s): A0038945, A0039514

Permit Number: P0106368

Permit Description: Administrative modification to remove restriction that allows operation of one boiler at a time for B007 & B006. More stringent restrictions on operating hours to decrease NOx emissions restricted potential emissions to maintain synthetic minor status.

Permit Type: Administrative Modification

Permit Fee: \$200.00 *DO NOT send payment at this time, subject to change before final issuance*

Issue Date: 11/26/2010

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:

HOLMES BY-PRODUCTS INC.
3175 TWP RD 411
Millersburg, OH 44654

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

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087
(330)425-9171

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

Chris Korleski
Director



Authorization (continued)

Permit Number: P0106368
Permit Description: Administrative modification to remove restriction that allows operation of one boiler at a time for B007 & B006. More stringent restrictions on operating hours to decrease NOx emissions restricted potential emissions to maintain synthetic minor status.

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

Emissions Unit ID:	B007
Company Equipment ID:	Boiler (Erie City)
Superseded Permit Number:	P0084645
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions

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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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

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

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

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

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

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

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

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

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

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

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).

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.

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) B.2 through B.9
 - (2) The Ohio EPA has determined that this facility may in the future be subject to the requirements of a proposed area source MACT/GACT rule, 40 CFR Part 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with these rules are in effect and are enforceable by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>
2. Federally Enforceable Permit to Install and Operate P0106368 for this air contaminant source takes into account the following voluntary restrictions, regarding the emissions units specified in B.3.a and B.3.b, as proposed by the permittee for the purpose of avoiding Title V requirements under OAC rules 3745-77-02 through 3745-77-10:
 - a) The emissions of carbon monoxide (CO) from the emissions units specified in B.3 shall not exceed 98.28 tons per year, based on a rolling, 12-month summation of the monthly emissions.
 - b) The emissions of nitrogen oxides (NO_x) from the emissions units specified in B.3 shall not exceed 80.26 tons per year, based on a rolling, 12-month summation of the monthly emissions.
 - c) The emissions of sulfur dioxide (SO₂) from the emissions units specified in B.3 shall not exceed 98.19 tons per year, based on a rolling, 12-month summation of the monthly emissions.
3. Voluntary restrictions to limit potential facility-wide emissions of CO, NO_x and SO₂ by operating hours restrictions, include the following emissions units:
 - a) (B006) Boiler with a 20 mmBtu/hr wood-fired burner and a 37.8 mmBtu/hr natural gas, no. 2 fuel oil or tallow burner with a cyclone that is vented to a baghouse to control particulate emissions. (Only one burner may be operated at a time.); and
 - b) (B007) 30 mmBtu/hr wood or coal-fired boiler with a cyclone that is vented to a baghouse to control particulate emissions.



Any new operation that has the potential to emit CO, NO_x or SO₂ located at this facility, including any de minimis air contaminant sources, as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit is subject to the rolling, 12-month emissions limitation(s) on CO, NO_x or SO₂ specified in B.2.

Operational Restrictions

4. If no coal is burned at emissions unit B007 during a rolling, 12-month period, then the combined maximum operating hours for the emissions units specified in B.3.a) and B.3.b) shall not exceed 12,000 hours per rolling, 12-month summation of the operating hours.
5. If coal is burned at emissions unit B007 during a rolling, 12-month period, then the emissions units specified in B.3.a) and B.3.b) are subject to the following operating restrictions:
 - a) the maximum operating hours for emissions unit B006 shall not exceed 3,240 hours, employing no. 2 oil as the combustion fuel, per rolling, 12-month summation of the operating hours; and
 - b) the maximum operating hours for emissions unit B007 shall not exceed 3,240 hours, employing coal as the combustion fuel, per rolling, 12-month summation of the operating hours.

Monitoring & Record Keeping

6. The permittee shall maintain the following monthly records for the emissions units identified in B.3.a) and B.3.b):
 - a) the operating hours for each fuel type (i.e. wood, coal, no. 2 fuel oil, natural gas or tallow) combusted in each emissions unit for each month;
 - b) the total operating hours of each emissions unit for each month;
 - c) the rolling, 12-month summation of the operating hours of each emissions unit for each month;
 - d) if no coal is burned at emissions unit B007 during a rolling, 12-month period, the combined rolling, 12-month summation of the operating hours for the emissions units specified in B.3.a) and B.3.b); and
 - e) if coal is burned at emissions unit B007 during a rolling 12-month period, the following records shall be maintained:
 - (1) the rolling, 12-month summation of the operating hours for emissions unit B006, employing no. 2 oil; and
 - (2) the rolling, 12-month summation of the operating hours for emissions unit B007, employing coal.
7. The permittee shall maintain monthly records of the following information for the emissions units identified in B.3:
 - a) the emissions of CO, NO_x and SO₂ for each emissions unit for each month, in tons;



- b) the rolling, 12-month summation of the emissions of CO, NO_x and SO₂ for each emissions unit, in tons; and
- c) the combined rolling, 12-month summation of the emissions of CO, NO_x and SO₂ for all the emissions units specified in B.3, in tons.

Reporting Requirements

- 8. 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:
 - (1) the 98.28 tons CO emissions limit as a rolling, 12-month summation, from the emissions units specified in B.3;
 - (2) the 80.26 tons NO_x emissions limit as a rolling, 12-month summation, from the emissions units specified in B.3;
 - (3) the 98.19 tons SO₂ emissions as a rolling, 12-month summation, from the emissions units specified in B.3;
 - (4) if no coal is burned at emissions unit B007 during a rolling, 12-month period, the 12,000 combined operating hours limit, as a rolling, 12-month summation, for the emissions units specified in B.3.a) and B.3.b);
 - (5) if coal is burned at emissions unit B007 during a rolling, 12-month period, the 3,240 operating hours limit, employing no. 2 oil, as a rolling, 12-month summation, for emissions unit B006; and
 - (6) if coal is burned at emissions unit B007 during a rolling, 12-month period, the 3,240 operating hours limit, employing coal, as a rolling, 12-month summation, for emissions unit B007.
 - b) the probable cause of each deviation (excursion);
 - c) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d) the magnitude and duration of each deviation (excursion).

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

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

Testing Requirements



9. Compliance with the allowable emission limitations in B.2 of these terms and conditions shall be determined in accordance with the following methods:

a) Emission Limitations:

98.28 tons CO emissions, as a rolling, 12-month summation, from the emissions units specified in B.3;

80.26 tons NO_x emissions, as a rolling, 12-month summation, from the emissions units specified in B.3; and

98.19 tons SO₂ emissions, as a rolling, 12-month summation, from the emissions units specified in B.3.

Applicable Compliance Method:

Compliance may be based on the following equation(s):

- (1) Determination of the monthly emissions of CO, NO_x and SO₂ from wood combustion at each emissions unit or tallow combustion at B006:

$$\text{Pollutant}_{\text{MONTH}} = \text{EF}_{\text{POLLUTANT LB/MMBTU}} \times \text{H} \times \text{HRS/month} \times \text{ton}_{\text{POLLUTANT}}/2,000_{\text{LB POLLUTANT}}$$

where:

Pollutant_{MONTH} = the monthly emissions of CO, NO_x and SO₂ each, in tons, at each emissions unit.

EF_{POLLUTANT LB/MMBTU} = an emission factor of a pollutant, in lb(s) per million Btu heat input.

The following emission factors were employed in the application for FEPTIO P0106368:

EF_{CO WOOD} = 0.60 lb CO/mmBtu for combustion of bark & wet wood as found in Table 1.6-2, AP-42 Chap. 1.6 (9/03).

EF_{CO TALLOW} = 0.012 lb CO/mm Btu for combustion of tallow at B006 as found in page 6-2, A Demonstration of Fat and Grease as an Industrial Boiler Fuel, Engineering Outreach Service, The University of Georgia, June 30, 2002.

EF_{NOX WOOD} = 0.49 lb NO_x/mmBtu for combustion of dry wood as found in Table 1.6-2, AP-42 Chap. 1.6 (9/03), as employed in the application for FEPTIO P0106368.

EF_{NOX TALLOW} = 0.118 lb NO_x/mm Btu as found in page 6-2, A Demonstration of Fat and Grease as an Industrial Boiler Fuel, Engineering Outreach Service, The University of Georgia, June 30, 2002.

EF_{SO2 WOOD} = 0.025 lb SO₂/mmBtu for combustion of bark & wet wood as well as dry wood as found in Table 1.6-2, AP-42 Chap. 1.6 (9/03), as employed in the application for FEPTIO P0106368.

$EF_{SO_2 \text{ TALLOW}} = 0.002 \text{ lb SO}_2/\text{mm Btu}$ in page 6-2, A Demonstration of Fat and Grease as an Industrial Boiler Fuel, Engineering Outreach Service, The University of Georgia, June 30, 2002.

H = maximum rated heat input, in million Btu/hr, which is 20 mmBtu/hr and 30 mmBtu/hr for wood combustion at B006 and B007, respectively; as stated in the application for FEPTIO P0106368. For combustion of tallow, natural gas or no. 2 fuel oil the maximum rated heat input of B006 is 37.8 mmBtu/hr; as stated in the application for FEPTIO P0106367.

HRS = actual, monthly hours of operation for combustion of a specified fuel at each emissions unit; as specified in B.6.a).

- (2) Determination of the monthly emissions of CO and NO_x from coal combustion at B007:

$$\text{Pollutant}_{\text{MONTH}} = EF_{\text{POLLUTANT LB/TON}} \times W \times \text{HRS/month} \times \text{ton}_{\text{POLLUTANT}}/2,000_{\text{LB POLLUTANT}}$$

where:

Pollutant_{MONTH} = the monthly emissions of CO and NO_x each, in tons, at B007.

EF_{POLLUTANT LB/TON} = an emission factor of a pollutant, in lb(s) per ton of fuel (i.e. coal).

The following emission factors were employed in the application for FEPTIO P0106368:

$EF_{CO \text{ COAL}} = 6 \text{ lb CO/ton}_{\text{COAL}}$ for combustion at an overfeed stoker coal-fired boiler as found in Table 1.1-3, AP-42 Chap. 1.1(9/98).

$EF_{NOX \text{ COAL}} = 7.5 \text{ lb NO}_x/\text{ton}_{\text{COAL}}$ for combustion at an overfeed stoker coal-fired boiler as found in Table 1.1-3, AP-42 Chap. 1.1(9/98).

W = maximum, hourly fuel input, which is 1.25 ton/hr of coal at B007, as stated in the application for FEPTIO P0106368.

- (3) Determination of the monthly SO₂ emissions from oil combustion at B006:

$$SO_2 \text{ LB/MONTH} = (\sum(142 \times S_i/10^3 \text{ gal} \times V_i)/\text{month} \times \text{ton}_{SO_2}/2,000_{\text{LB SO}_2})$$

where:

SO₂ LB/MONTH = the monthly SO₂ emissions from oil combustion at B006, in tons, as derived from Table 1.3-1 AP-42 Chap. 1.3 (9/98).

S_i = the sulfur content of oil, in percent by weight, as determined from the fuel supplier certification, required by C.1.d)(7) in PTIO# P0106367 for B006.

V_i = the actual volume of oil, from each shipment that is combusted, in gallons, based on records required by C.1.d)(8) in PTIO# P0106367.

- (4) Determination of the monthly SO₂ emissions from coal combustion at B007:

$$SO_2 \text{ LB/MONTH} = (\sum SO_2 \text{ LB/MMBTU}_i \times H_i \times W_i)/\text{month} \times \text{ton}_{SO_2}/2,000_{\text{LB SO}_2}$$

where:

$SO_{2\text{ LB/MONTH}}$ = the monthly SO_2 emissions from coal combustion at B007, in tons.

$SO_{2\text{ LB/MMBTU COAL}}$ = the actual SO_2 content of each shipment of coal, in lb/mmBtu, as determined from the analysis of each coal shipment, as required by C.1.d)(7) in PTIO# P0106368 for B007.

H_{COAL} = the actual heat content of each shipment of coal, in Btu/lb, as determined from the analysis of each coal shipment, as required by C.1.d)(7) in PTIO# P0106368 for B007.

W_{COAL} = the actual weight of coal from each shipment that is combusted, in lbs, based on records required by C.1.d)(8) in PTIO# P0106368.

- (5) Determination of the monthly emissions of CO and NO_x from no. 2 oil combustion at B006:

$$\text{Pollutant}_{\text{MONTH}} = EF_{\text{POLLUTANT LB/1000 GAL}} \times V \times \text{HRS/month} \times \text{ton}_{\text{POLLUTANT}}/2,000_{\text{LB POLLUTANT}}$$

where:

$\text{Pollutant}_{\text{MONTH}}$ = the monthly emissions of CO and NO_x each, in tons, at B006.

$EF_{\text{POLLUTANT LB/1000 GAL}}$ = an emission factor of a pollutant, in lb(s) per 1,000 gallons of fuel (i.e. no. 2 oil).

The following emission factors were employed in the application for FEPTIO P0106368:

$EF_{\text{CO LB/1000 GAL}} = 5 \text{ lbs CO/1000 gal}_{\text{OIL}}$ for no. 2 oil combustion, as found in Table 1.3-1 AP-42 Chap. 1.3 (9/98).

$EF_{\text{NOX LB/1000 GAL}} = 20 \text{ lbs NO}_x/1000 \text{ gal}_{\text{OIL}}$ for no. 2 oil combustion, as found in Table 1.3-1 AP-42 Chap. 1.3 (9/98).

V = the maximum volume usage of no. 2 oil, which is 266 gal_{OIL}/hr as stated in the application for FEPTIO P0106367.

- (6) Determination of the monthly emissions of CO, NO_x and SO_2 from natural gas combustion at B006:

$$\text{Pollutant}_{\text{MONTH}} = EF_{\text{POLLUTANT LB/MMCF}} \times V \times \text{HRS/month} \times \text{ton}_{\text{POLLUTANT}}/2,000_{\text{LB POLLUTANT}}$$

where:

$\text{Pollutant}_{\text{MONTH}}$ = the monthly emissions of CO, NO_x and SO_2 each, in tons, at B006.

$EF_{\text{POLLUTANT LB/MMCF}}$ = an emission factor of a pollutant, in lb(s) per million cubic feet of fuel (i.e. natural gas).

The following emission factors were employed in the application for FEPTIO P0106367:

$EF_{CO\text{ LB/MMCF}} = 84 \text{ lbs CO/mmcf (0.084 lb CO/mmBtu)}$ for natural gas combustion as found in Table 1.4-2 AP-42 Chap. 1.4 (7/98).

$EF_{NOX\text{ LB/MMCF}} = 50 \text{ lbs NO}_x\text{/mmcf (0.05 lb NO}_x\text{/mmBtu)}$ for natural gas combustion with a low NO_x burner as found in Table 1.4-1 AP-42 Chap. 1.4 (7/98).

$EF_{SO2\text{ LB/MMCF}} = 0.6 \text{ lb SO}_2\text{/mmcf (0.0006 lb SO}_2\text{/mmBtu)}$ for natural gas combustion with as found in Table 1.4-2 AP-42 Chap. 1.4 (7/98).

V = maximum volume usage of gas fuel, which is 0.0378 cf/hr as stated in the application for FEPTIO P0106367.

- (7) Determination of the total emissions of CO, NO_x and SO_2 each from each emissions unit from the combustion of all fuels for each month:

$$\text{Pollutant}_{\text{MONTH}} = \sum \text{Pollutant}_{\text{MONTH} - \text{FUEL } i}$$

where:

$\text{Pollutant}_{\text{MONTH}}$ = total pollutant emissions, in tons/month, from the combustion of all fuels.

$\text{Pollutant}_{\text{MONTH} - \text{FUEL } i}$ = total pollutant emissions in tons/month from specified fuel i.

For B006 the fuel may be wood, tallow, no. 2 oil or natural gas. For B007 the fuel may be wood or coal.

- (8) The determination of the rolling, 12-month summations of the emissions of CO, NO_x and SO_2 may be demonstrated by the record keeping requirement(s) in B.7.b).
- (9) The determination of the combined rolling, 12-month summations of the emissions of CO, NO_x and SO_2 for all emissions units specified in B.3, in tons, may be demonstrated by the record keeping requirement(s) in B.7.c).

10. Miscellaneous Requirements

- a) None.

C. Emissions Unit Terms and Conditions



1. B007, Boiler (Erie City)

Operations, Property and/or Equipment Description:

30 mmBtu/hr wood or coal-fired boiler with a cyclone that is vented to a baghouse to control particulate emissions

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. b)(1)e and b)(2)d regarding the NO_x RACT rule

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) established in PTI 02-01817 as modified on May 6, 1992	Particulate emissions (PE) shall not exceed 0.2 lb/mmBtu of actual heat input. See b)(2)a. Sulfur dioxide (SO ₂) emissions shall not exceed 1.6 lbs/mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)
b.	OAC rule 3745-17-07(A)	See b)(2)b. and b)(2)c.
c.	OAC rule 3745-17-10(B)	The PE limitation specified by this rule is less stringent than the particulate emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-44(A)	The SO ₂ emissions limitation specified by this rule is less stringent than the SO ₂ emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-110-02	Exempt per OAC rule 3745-110-02(A)(1)(b). See b)(2)d.
f.	OAC rule 3745-31-	See B.2 through B.9.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	05(D)(1)(b) voluntary restriction to avoid Title V requirements	

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to a cyclone (i.e. cyclone-E) at all times the emissions unit is in operation. The cyclone exhaust gases shall be vented to a baghouse (i.e. baghouse-E) at all times the emissions unit is in operation, except as specified in b)(2)c.
- b. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except:
 - i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but
 - ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
 - iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.
- c. As provided in OAC rule 3745-17-07(A)(3), the visible particulate emissions limitation specified in b)(2)b shall not apply to the following:
 - i. The permittee shall operate the baghouse (i.e. baghouse-E) during any operation of this emissions unit, except the baghouse may not be operated during periods of (emissions unit) start up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit (121 degrees Celcius) at the inlet of the baghouse or during periods of (emissions unit) shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit (121 degrees Celcius) at the baghouse inlet;
 - ii. The malfunction of the emissions unit or the malfunction/shutdown of the air pollution control equipment associated with the emissions unit, if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in paragraph (C) of OAC rule 3745-15-06 exist; or
 - iii. The commencement of increased coal firing from a banked condition for fuel burning equipment, for a period not to exceed thirty minutes.
- d. This emissions unit is not subject to a more stringent new source performance standard in 40 CFR Part 60 for nitrogen oxide (NO_x) emissions nor were the

original or modified Permits-to-Install issued after January 1, 2008 so that it is not subject to the NO_x reasonably available control technology requirements in OAC rule 3745-110-03.

- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements

Visible Emissions Check

- (1) The permittee shall perform daily checks, 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) 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.

- (2) If exemptions from the visible particulate emissions limitations are requested during start up, commencement of increased coal firing from a banked condition or shutdown of this emissions unit, the permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the baghouse and record the following information, if applicable:

- a. during all periods of start up until the baghouse is operational or until the inlet temperature specified in b)(2)c.i;
- b. during all periods of shutdown until the inlet temperature to the baghouse drops below the temperature specified in b(2)c.i; and
- c. during commencement of increased coal firing from a banked condition, the start time, end time and duration of any such period.

Air Pollution Control Equipment Requirements

- (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range for the pressure drop across the baghouse shall be within the range of 0.5 to 4 inches of water previously established in a permit to operate, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance. The permittee shall record the following information for each day of operation:
 - a. the pressure drop across the baghouse, on an once/8-hour basis;
 - b. a log of the downtime for each capture (collection) system, the cyclone, the baghouse and monitoring equipment when the associated emissions unit was in operation, on a daily basis; and
 - c. a log of operating hours for each fuel type (i.e. wood or coal) combusted in this emissions unit, on a daily basis.
- (5) Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;

- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

Coal Quality Sampling and Analysis Requirements

- (6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the coal burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide (SO₂) per million Btu of heat content, complies with the allowable SO₂ emission limitation contained in this permit.

- (7) The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal and analyze the coal sample for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Ohio EPA Northeast District Office.
 - (8) For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, and heat content.
- e) Reporting Requirements
- (1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this emissions unit:
 - a. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the cyclone and the baghouse;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit, including all periods of time during startup, duration of commencement of increased coal firing from a banked condition, and shutdown of the emissions unit when the baghouse was not in operation and the temperature of the baghouse inlet gases exceeded the levels specified in b)(2)c.i;
 - c. any corrective actions taken to minimize or eliminate the visible particulate emissions;
 - d. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;

- e. each incident of deviation described in e)(1)b where a prompt investigation was not conducted;
- f. each incident of deviation described in e)(1)d where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken;
- g. each incident of deviation described in e)(1)e and e)(1)f where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit; and
- h. Copies of the coal analyses (wet and/or dry) for each shipment of coal which is received for burning in this emissions unit. The coal analyses shall document the ash content (percent), sulfur content (percent), and heat content (Btu/pound) of each shipment of coal. The following information shall also be included with the copies of the coal analyses:
 - i. the total quantity of coal received in each shipment (tons); and
 - ii. the calculated sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from each shipment of coal received.

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

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 allowable emission limitations and control measures requirements in b)(1) and b)(2) shall be determined in accordance with the following methods:
 - a. Emission Limitation

Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six

consecutive minutes in any 60 minutes; but shall not exceed 60 percent opacity, as a six-minute average, at any time.

Applicable Compliance Method

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A-4, Method 9.

b. Emission Limitation

The PE rate shall not exceed 0.2 lb/mmBtu of actual heat input.

Applicable Compliance Method

Compliance may be based on the following equation(s):

- i. Determination of the maximum, controlled PE rate from wood combustion:

$$PE_{WOOD} = EF_{PE\ WOOD} \times (1 - CE_{CYCLONE}) \times (1 - CE_{BAGHOUSE})$$

where:

$EF_{PE\ WOOD}$ = an emission factor, of 0.56 lb PE/mmBtu for filterable PE for the combustion of wood as well as dry wood as found in Table 1.6-1, AP-42 Chap. 1.6 (9/03).

PE_{WOOD} = the controlled PE rate from wood combustion, which is estimated to be 0.0011 lb PE/mmBtu.

$CE_{CYCLONE}$ = control efficiency of the cyclone, which is 80% for the PE rate reduction, as stated in the application for FEPTIO P0106368.

$CE_{BAGHOUSE}$ = control efficiency of the baghouse, which is 99% for the PE rate reduction, as stated in the application for FEPTIO P0106368.

- ii. Determination of the maximum, controlled PE rate from coal combustion:

$$PE_{COAL} = EF_{PE\ COAL} \times W \times (1 - CE_{CYCLONE}) \times (1 - CE_{BAGHOUSE})$$

where:

PE_{COAL} = the controlled PE rate from coal combustion, which is estimated to be 0.165 lb PE/mmBtu.

$EF_{PE\ COAL}$ = the maximum, emission factor for filterable PE for the combustion of coal in a spreader stoker boiler as found in AP42 Chap. 1.1 (9/98), Table 1.1-4, which is 66 lbs uncontrolled PE/ton_{COAL}.

W = the maximum throughput weight of coal, which is 1.25 ton_{COAL}/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emissions rate: Methods 1 – 5, as found in 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation

The SO₂ emissions shall not exceed 1.6 lbs/mmBtu of actual heat input.

Applicable Compliance Method

Compliance may be based on the following equation(s):

- i. Determination of the maximum, uncontrolled SO₂ rate from wood combustion.

An emission factor, $EF_{SO_2\ WOOD}$, of 0.025 lb SO₂/mmBtu for combustion of bark & wet wood as well as dry wood as found in Table 1.6-2, AP-42 Chap. 1.6 (9/03), as employed in the application for FEPTIO P0106368.

- ii. Determination of the actual, uncontrolled SO₂ rate from coal combustion:

$$SO_2\ LB/MMBTU = (1 \times 10^6)/H \times (S \times 1.9)$$

where:

$SO_2\ LB/MMBTU$ = the SO₂ emissions rate, in pounds of sulfur dioxide per million Btu of actual heat input.

H = the heat content of the solid fuel in Btu per pound, as determined from the coal analysis required by d)(7).

S = the decimal fraction of sulfur in the solid fuel, as determined from the coal analysis required by d)(7).

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emissions rate: Methods 1 – 4 and 6, as found in 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

g) **Miscellaneous Requirements**

- (1) B007 was installed in 1985 as a coal-fired emissions unit. PTI# 02-01817 was modified on 5/06/92 to allow combustion of wood. It is not subject to 40 CFR Part 60.40c – 60.48c because the physical change in materials did not increase the potential emissions of the regulated pollutants, PE and SO₂.
- (2) Rendering exhaust gases (P001 & P002) must be routed to a condenser(s) which vent the non-condensable exhaust to the firebox of this emissions unit to control odors as required by the Director's Finding & Orders of December 20, 2005. FEPTIO P0106367 for the modification of (B006) "Wickes" boiler with a 20 mmBtu/hr wood-fired burner and a 37.8 mmBtu/hr natural gas, no. 2 fuel oil or tallow burner will allow the condenser exhaust from the rendering operations (P001 & P002) to be combusted at the firebox associated with B006.