



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

5/1/2009

Certified Mail

MARK PIAZZA
PLANT FACTORY INC
1526 GULF ROAD
ELYRIA, OH 44035

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0247090337
Permit Number: P0104131
Permit Type: Initial Installation
County: Lorain

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate 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 comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Chronicle Telegram. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. 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 and operate 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 and Operate 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; Canada

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Emissions unit B004, 8.4 mmBtu/hr wood/coal-fired boiler

3. Facility Emissions and Attainment Status:

PE = 8.28 tpy
NOx = 13.54 tpy
SO2 = 24.99 tpy
CO = 16.57 tpy

4. Source Emissions:

SO2: Potential SO2 emissions from this source are 131 tons/year. Lorain County is attainment for SO2. This permit limits SO2 emissions to 24.99 tpy by restricting coal usage and hours of operation.

Although OAC rules 3745-31-05(D) and (E) are both applicable rules with regard to the annual emissions limitations in this permit, OAC rule 3745-31-05(E) is more stringent with regard to the annual SO2 emissions limitation. Based upon the SCREEN3 computer model, the permittee cannot meet the "Ohio Acceptable Incremental Impact" for SO2 in Table 3 of Ohio EPA's Engineering Guide number 69 when annual SO2 emissions are greater than 25 tons per year. Modeling is not required for sources with SO2 emissions less than 25 tons per year. Therefore, SO2 emissions in this permit are limited to 24.99 tons per year.

5. Conclusion:

This permit limits SO2 emissions to 24.99 tpy by restricting coal usage and hours of operation.

6. Please provide additional notes or comments as necessary:

Since SO2 emissions exceeded 25 tpy, modeling was performed for SO2. The facility could not pass modeling with the existing exhaust characteristics unless their SO2 emissions were limited to 3.6 lbs/hr which is equivalent to 77 lbs of coal/hr maximum usage.

Because this did not seem accurate to this office (NEDO), I consulted Sarah VanderWeilen, OEPA, CO, SO2 rule contact, and presented her with all of this information and the modeling inputs and results for verification. She indicated that the facility should be permitted at the low emission rate (3.6 lbs/hr) unless facility parameters could be changed or they try to run a different modeling program such as AERMOD. The facility consultant opted not to do this after consulting the client.

NEDO permitted the facility SO2 emissions of 24.99 tpy so that modeling could be avoided. This is equivalent to coal usage of 163.5 lbs/hr.

$SO_2 \text{ (lbs/hr)} = (24.99 \text{ tons/yr} \times 2000 \text{ lbs/ton}) / (6575 \text{ hrs/yr}) = 7.6 \text{ lbs/hr}$

$\text{Allowable coal usage} = (7.6 \text{ lbs/hr} \times 2000 \text{ lbs/ton}) / (93 \text{ lbs/ton}) = 163.5 \text{ lbs/hr}$

Where 93 lbs/ton is the emission factor for SO_2 ($31S = 31 \times \text{sulfur content}$) where sulfur content is 3%.

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

<u>Pollutant</u>	<u>Tons Per Year</u>
<u>SO₂</u>	<u>24.99</u>
<u>PE</u>	<u>8.28</u>
<u>NO_x</u>	<u>13.54</u>
<u>CO</u>	<u>16.57</u>

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
PLANT FACTORY INC

Issue Date: 5/1/2009
Permit Number: P0104131
Permit Type: Initial Installation
Permit Description: 8.4 mmBtu/hr wood/coal-fired boiler
Facility ID: 0247090337
Facility Location: PLANT FACTORY INC
6346 AVON BELDEN RD.,
NORTH RIDGEVILLE, OH 44039
Facility Description: Nursery and Tree Production

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 Anthony Becker at Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road or (330)425-9171. The permit can be downloaded from the Web page: www.epa.state.oh.us/dapc



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

DRAFT

**Air Pollution Permit-to-Install and Operate
for
PLANT FACTORY INC**

Facility ID: 0247090337
Permit Number: P0104131
Permit Type: Initial Installation
Issued: 5/1/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
PLANT FACTORY INC

Table of Contents

Authorization 1

A. Standard Terms and Conditions 3

 1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4

 2. Who is responsible for complying with this permit? 4

 3. What records must I keep under this permit? 4

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

 5. When does my PTIO expire, and when do I need to submit my renewal application? 4

 6. What happens to this permit if my project is delayed or I do not install or modify my source? 5

 7. What reports must I submit under this permit? 5

 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? 5

 9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?... 5

 10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6

 11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6

 12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6

 13. Can I transfer this permit to a new owner or operator? 6

 14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7

 15. What happens if a portion of this permit is determined to be invalid? 7

B. Facility-Wide Terms and Conditions 8

C. Emissions Unit Terms and Conditions 10

 1. B004, B004..... 11



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0247090337
Application Number(s): A0036395
Permit Number: P0104131
Permit Description: 8.4 mmBtu/hr wood/coal-fired boiler
Permit Type: Initial Installation
Permit Fee: \$200.00 *DO NOT send payment at this time - subject to change before final issuance*
Issue Date: 5/1/2009
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:

PLANT FACTORY INC
6346 AVON BELDEN RD.
NORTH RIDGEVILLE, OH 44039

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0104131

Permit Description: 8.4 mmBtu/hr wood/coal-fired boiler

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

Emissions Unit ID:	B004
Company Equipment ID:	B004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 submitting 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 emission 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.

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104131

Facility ID: 0247090337

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. B004, B004

Operations, Property and/or Equipment Description:

8.4 mmBtu/hr wood/coal-fired boiler equipped with a multiclone

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific 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)	Particulate emissions (PE) shall not exceed 2.52 lbs/hr. Nitrogen oxides (NOx) emissions shall not exceed 4.12 lbs/hr. Sulfur dioxide (SO2) emissions shall not exceed 7.6 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 5.04 lbs/hr.
b.	OAC rule 3745-31-05(D) and (E)	PE shall not exceed 8.28 tons/yr as a rolling, 12-month average. NOx emissions shall not exceed 13.54 tons/yr as a rolling, 12-month average. SO2 emissions shall not exceed 24.99 tons/yr as a rolling, 12-month average.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		CO emissions shall not exceed 16.57 tons/yr as a rolling, 12-month average. See b)(2)e. below. See c)(4) and c)(5) below.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)a. and b)(2)b. below.
d.	OAC rule 3745-17-10(C)(7)	See b)(2)c. below.

(2) Additional Terms and Conditions

- a. This emissions unit shall comply with OAC rules 3745-17-07(A)(1) which limits visible particulate emissions as follows:
 - i. The visible particulate emissions from the exhaust stack serving this emission unit shall not exceed an opacity of twenty (20) percent as a six-minute average.
 - ii. The visible particulate emissions from the stack may exceed twenty (20) percent as a six-minute average for not more than six (6) consecutive minutes in any sixty-minute period, but shall not exceed sixty (60) percent opacity at any time.
- b. The visible particulate emission limitations specified by OAC rule 3745-17-07(A) shall not apply to the following operations, provided the operations are documented in a boiler operations log kept at the facility. The log shall clearly document the date, beginning time, and ending time of the exempted operations listed below.
 - i. The start-up of the source for a period of time required to achieve stable combustion conditions, but not more than three (3) hours from the moment of start-up. "Start-up" means the commencement of firing of fuel from a cold non-fired condition.
 - ii. The shutdown of the source for a period of not more than three (3) hours.
 - iii. The malfunction of the source or associated equipment, if the owner of the source or operator of the equipment complies with the requirements of OAC rule 3745-15-06.
 - iv. Intermittent soot blowing operation (the cleaning of heat transfer surfaces with pressurized air or steam).
 - v. Intermittent ash removal operation (the dumping or pulling of ash).
 - vi. The commencement of increased coal and/or wood firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.



- c. The coal received for use in this emissions unit shall have an ash content of less than 8.0 percent by weight, a heat content of greater than thirteen thousand BTU per pound, and percent sulfur content no greater than 3.0 percent. Ash content, heat content, and sulfur content shall be determined on a dry basis in accordance with the procedures specified in OAC rule 3745-17-03(B)(9).
- d. The hourly emission limitations for particulate, NOx, and CO are based upon the emissions unit's potentials to emit (PTE) and 6575 hours per year of operation. Therefore, no monitoring, record keeping, and reporting requirements are required to ensure on-going compliance with these limits.
- e. Although OAC rules 3745-31-05(D) and (E) are both applicable rules with regard to the annual emissions limitations in this permit, OAC rule 3745-31-05(E) is more stringent with regard to the annual SO2 emissions limitation. Based upon the SCREEN3 computer model, the permittee cannot meet the "Ohio Acceptable Incremental Impact" for SO2 in Table 3 of Ohio EPA's Engineering Guide number 69 when annual SO2 emissions are greater than 25 tons per year. Modeling is not required for sources with SO2 emissions less than 25 tons per year. Therefore, SO2 emissions in this permit are limited to 24.99 tons per year.

c) Operational Restrictions

- (1) The fuel burning equipment identified in this permit shall be used exclusively for space heating purposes.
- (2) The permittee shall only burn wood and/or coal in this emissions unit.
- (3) The permittee shall only burn clean, untreated wood in this emissions unit.
- (4) The use of flyash reinjection in the fuel burning equipment is prohibited.
- (5) The permittee shall operate the multiclone associated with this emissions unit at all times when the emissions unit is in operation.
- (6) The permittee shall not burn more than 163.5 pounds of coal per hour in this emissions unit.
- (7) The hours of operation of this emissions unit shall be limited to 6575 hours on a rolling, 12-month basis.

During the first twelve (12) months of operation under this permit, hours of operation of this emissions unit shall not exceed the cumulative total hours of operation as specified for each month in the following table:

<u>Month</u>	<u>Cumulative Allowable Hours of Operation</u>
1	1095.83
2	2191.67
3	3287.50
4	4383.33



5	5479.16
6	6575.00
7	6575.00
8	6575.00
9	6575.00
10	6575.00
11	6575.00
12	6575.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual cumulative hours of operation shall be based upon a rolling, 12-month summation of the monthly hours of operation.

- (8) The quality of the coal burned in this emissions unit shall meet the following specifications on an as received wet basis:
 - a. Less than 8 percent ash, by weight;
 - b. A sulfur content which is sufficient to comply with the allowable SO₂ emission limitation of 7.6 lbs/hr; and
 - c. Greater than 13,000 Btu/pound of coal.

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

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

- (1) For each day during which the permittee burns a fuel other than wood and/or coal, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) 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 boiler 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 emission incident; and



- e. Any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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 action, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operation, 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.

- (3) The permittee shall maintain an operations log for this emissions unit. This operations log shall contain, at a minimum, the following information:
 - a. The dates and times of any start-up and shutdown of this emissions unit;
 - b. The duration (in minutes) of the exempted operations listed in Section 1.b)(2)b;
 - c. The number of hours of normal or full firing while burning wood only, coal only, and a wood/coal mixture only is to be recorded for each day of operation;
 - d. The number of hours of banked condition is to be recorded for each day of operation;
 - e. The total number of hours of operation, i.e., the summation of c and d;
 - f. The amount of wood (in pounds) fed to and burned in this emissions unit each day;
 - g. The amount of coal (in pounds) fed to and burned in this emissions unit each day; and
 - h. The dates and times of any malfunction of this emission unit and any corrective action taken.
- (4) For each shipment of coal to be burned in this emissions unit, the permittee shall record the following information:
 - a. The name of the coal supplier;
 - b. The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility or at another location. The report shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);
 - c. The total quantity (in tons) of coal received;
 - d. The sulfur content (in percent) of the coal on a dry basis;



- e. The moisture content of the coal on a dry basis;
 - f. The ash content (in percent) of the coal on a dry basis;
 - g. The heat content (BTU per pound) of the coal on a dry basis; and
 - h. The methods used to determine the properties of the coal.
- (5) Modeling to demonstrate compliance with the “Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a “modification” as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than wood and/or coal was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
 - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (3) The permittee shall submit, on a quarterly basis, copies of the permittee’s or coal supplier’s analyses (wet) for each shipment of coal which is received for burning in this emissions unit. The permittee or coal supplier’s 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 permittee’s or coal supplier’s analyses:
 - a. The total quantity of coal received in each shipment (tons);
 - b. The weighted* average ash content (percent) of the coal received during each calendar month;
 - c. The weighted* average sulfur content (percent) of the coal received during each calendar month;
 - d. The weighted* average heat content (Btu/pound) of the coal received during each calendar month; and
 - e. The weighted* average sulfur dioxide emissions rate (pound of SO₂/mmBtu actual heat input) from the coal received each calendar month.



*In proportion to the quantity of coal received in each shipment during the calendar month.

f) Testing Requirements

(1) Compliance with the emission limitations in sections b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

The visible particulate emissions from the exhaust stack serving this emission unit shall not exceed an opacity of twenty (20) percent as a six-minute average. The visible particulate emissions from the stack may exceed twenty (20) percent as a six-minute average for not more than six (6) consecutive minutes in any sixty-minute period, but shall not exceed sixty (60) percent opacity at any time. This emissions limitation applies, except as exempted by OAC rule 3745-17-03(B)(1).

Applicable Compliance Method:

If required, compliance with the above emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

b. Emissions Limitation:

Particulate emissions shall not exceed 2.52 lbs/hr and 8.28 tons/yr as a rolling, 12-month average.

Applicable Compliance Method:

i. The permittee may determine the hourly particulate emission rate when burning coal using the following equation:

$$E = X \text{ lbs/hr} \times 11 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E = emission rate in pounds per hour;

X = quantity of coal burned, in lbs per hour;

11 lbs/ton = emissions factor for underfeed stoker, with multiple cyclone, taken from AP-42, Section 1.1, Table 1.1-4, Bituminous and Subbituminous Coal Combustion, 9/98; and

1 ton/2000 lbs = conversion from tons to lbs.

ii. The permittee may determine the hourly particulate emission rate when burning wood using the following equation:

$$E = 8.4 \text{ mmBtu/hr} \times 0.30 \text{ lb/mmBtu}$$



Where

E = emission rate in pounds per hour;

8.4 mmBtu/hr = maximum heat input; and

0.30 lb/mmBtu = emissions factor for wood combustion with mechanical collector, taken from AP-42, Section 1.6, Table 1.6-1, Wood Residue Combustion in Boilers, 9/03.

- iii. If required, compliance with the particulate emission rate of 2.52 lbs/hr shall be determined while operating at maximum capacity burning wood in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.
- iv. Compliance with the annual emissions rate is assumed provided that the permittee complies with the hourly emission rate and operates no more than 6575 hours per year.

c. Emissions Limitation:

NOx emissions shall not exceed 4.12 lbs/hr and 13.54 tons/yr as a rolling, 12-month average.

Applicable Compliance Method:

- i. The permittee may determine the hourly NOx emission rate when burning coal using the following equation:

$$E = X \text{ lbs/hr} \times 9.5 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E = emission rate in pounds per hour;

X = quantity of coal burned, in lbs per hour;

9.5 lbs/ton = emissions factor for underfeed stoker taken from AP-42, Section 1.1, Table 1.1-3, Bituminous and Subbituminous Coal Combustion, 9/98; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. The permittee may determine the hourly NOx emission rate when burning wood using the following equation:

$$E = 8.4 \text{ mmBtu/hr} \times 0.49 \text{ lb/mmBtu}$$

Where

E = emission rate in pounds per hour;

8.4 mmBtu/hr = maximum heat input; and



0.49 lb/mmBtu = emissions factor for wood taken from AP-42, Section 1.6, Table 1.6-2, Wood Residue Combustion in Boilers, 9/03.

- iii. If required, compliance with the NOx emission rate of 4.12 lbs/hr shall be determined while operating at maximum capacity burning wood in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
- iv. Compliance with the annual emissions rate is assumed provided that the permittee complies with the hourly emission rate and operates no more than 6575 hours per year.

d. Emissions Limitation:

SO2 emissions shall not exceed 7.6 lbs/hr, and 24.99 tons/yr as a rolling, 12-month average.

Applicable Compliance Method:

- i. The permittee may determine the hourly SO2 emission rate when burning coal using the following equation:

$$E = X \text{ lbs/hr} \times (31 \times 3) \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E = emission rate in pounds per hour;

X = quantity of coal burned, in lbs per hour;

(31 x 3) lbs/ton = emissions factor for underfeed stoker where 3 represents the maximum allowable percent sulfur content of the coal, as burned, taken from AP-42, Section 1.1, Table 1.1-3, Bituminous and Subbituminous Coal Combustion, 9/98; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. The permittee may determine the hourly SO2 emission rate when burning wood using the following equation:

$$E = 8.4 \text{ mmBtu/hr} \times 0.025 \text{ lb/mmBtu}$$

Where

E = emission rate in pounds per hour;

8.4 mmBtu/hr = maximum heat input; and

- iii. 0.025 lb/mmBtu = emissions factor for wood taken from AP-42, Section 1.6, Table 1.6-2, Wood Residue Combustion in Boilers, 9/03.

- iv. If required, compliance with the SO2 emission rate of 7.6 lbs/hr shall be determined while operating at maximum capacity burning coal in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.



- v. Compliance with the annual emissions rate is assumed provided that the permittee complies with the lb/hr and lb/mmBtu emission rates and operates no more than 6575 hours per year.

e. Emissions Limitation:

CO emissions shall not exceed 5.04 lbs/hr and 16.57 tons/yr as a rolling, 12-month average.

Applicable Compliance Method:

- i. The permittee may determine the hourly CO emission rate when burning coal using the following equation:

$$E = X \text{ lbs/hr} \times 11 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E = emission rate in pounds per hour;

X = quantity of coal burned, in lbs per hour;

11 lbs/ton = emissions factor for underfeed stoker taken from AP-42, Section 1.1, Table 1.1-3, Bituminous and Subbituminous Coal Combustion, 9/98; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. The permittee may determine the hourly CO emission rate when burning wood using the following equation:

$$E = 8.4 \text{ mmBtu/hr} \times 0.60 \text{ lb/mmBtu}$$

Where

E = emission rate in pounds per hour;

8.4 mmBtu/hr = maximum heat input; and

0.60 lb/mmBtu = emissions factor for wood taken from AP-42, Section 1.6, Table 1.6-2, Wood Residue Combustion in Boilers, 9/03.

- iii. If required, compliance with the CO emission rate of 5.04 lbs/hr shall be determined while operating at maximum capacity burning wood in accordance with 40 CFR Part 60, Appendix A, Method 10.

- iv. Compliance with the annual emissions rate is assumed provided that the permittee complies with the hourly emission rate and operates no more than 6575 hours per year.

g) Miscellaneous Requirements

- (1) None.