



7/3/2014

Certified Mail

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

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0247090337
Permit Number: P0116515
Permit Type: Renewal
County: Lorain

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

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

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



FINAL

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

Facility ID:	0247090337
Permit Number:	P0116515
Permit Type:	Renewal
Issued:	7/3/2014
Effective:	7/3/2014
Expiration:	7/3/2019



Division of Air Pollution Control
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?.....	7
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



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

Authorization

Facility ID: 0247090337
Application Number(s): A0050327
Permit Number: P0116515
Permit Description: FEPTIO renewal permit for a 8.4 mmBtu/hr wood/coal-fired boiler equipped with a multiclone
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 7/3/2014
Effective Date: 7/3/2014
Expiration Date: 7/3/2019
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

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.

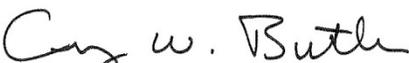
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(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


Craig W. Butler
Director



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

Authorization (continued)

Permit Number: P0116515

Permit Description: FEPTIO renewal permit for a 8.4 mmBtu/hr wood/coal-fired boiler equipped with a multiclone

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:	P0104131
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

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 of this permit 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 [DO/LAA] 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.

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.



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

B. Facility-Wide Terms and Conditions



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



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

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. d)(5).

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

a. b)(2)c, c)(6) and c)(7).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	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.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		SO ₂ emissions shall not exceed 24.99 tons/yr as a rolling, 12-month average. CO emissions shall not exceed 16.57 tons/yr as a rolling, 12-month average. See b)(2)c. and b)(2)e. below. See c)(6) and c)(7) 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, NO_x, 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.
 - (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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (4) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



f) Testing Requirements

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

a. 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

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.



- iii. 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.
- iv. 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.



Final Permit-to-Install and Operate
PLANT FACTORY INC
Permit Number: P0116515
Facility ID: 0247090337
Effective Date: 7/3/2014

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.