



2/5/2015

Certified Mail

Melissa Hatfield-Atkinson  
Chesapeake Exploration LLC - Jamar 15-13-6 Pad  
P.O. Box 6070  
414 Summers Street  
Charleston, WV 25362

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0634005109  
Permit Number: P0118329  
Permit Type: Initial Installation  
County: Harrison

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](http://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](http://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](http://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, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-SEDO



**FINAL**

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

**Chesapeake Exploration LLC - Jamar 15-13-6 Pad**

Facility ID:	0634005109
Permit Number:	P0118329
Permit Type:	Initial Installation
Issued:	2/5/2015
Effective:	2/5/2015
Expiration:	2/5/2025





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Chesapeake Exploration LLC - Jamar 15-13-6 Pad

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## Authorization

Facility ID: 0634005109  
Application Number(s): A0052613  
Permit Number: P0118329  
Permit Description: This is a general permit for the Oil and Gas Well-Site Production Operations with a Small Flare (GP 12.1) and a general permit for unpaved roadways and parking areas with a maximum of 120,000 vehicle miles traveled per year located (GP 5.1) in Harrison County, Ohio for Chesapeake ĳ Jamar 15-13-6 Production Facility. No other permitted sources are currently located at this facility and the facility is not yet in operation.  
Permit Type: Initial Installation  
Permit Fee: \$4,600.00  
Issue Date: 2/5/2015  
Effective Date: 2/5/2015  
Expiration Date: 2/5/2025  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Chesapeake Exploration LLC - Jamar 15-13-6 Pad  
Timmerman Rd  
Bowerston, OH 44695

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, Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740)385-8501

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



## Authorization (continued)

Permit Number: P0118329  
 Permit Description: This is a general permit for the Oil and Gas Well-Site Production Operations with a Small Flare (GP 12.1) and a general permit for unpaved roadways and parking areas with a maximum of 120,000 vehicle miles traveled per year located (GP 5.1) in Harrison County, Ohio for Chesapeake Jamar 15-13-6 Production Facility. No other permitted sources are currently located at this facility and the facility is not yet in operation.

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

<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>F001</b>          Fugitives          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>F002</b>          Unpaved Roadways          Unpaved Roadways and Parking Areas - Maximum of 120,000 vehicle miles traveled/year (GP5.1 effective 2/7/06)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>P001</b>          Dehydration System          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>P002</b>          FGC-4 and FGC-5          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>P003</b>          Compression Ignition Engine          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>P004</b>          CS-1          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>
<p><b>Emissions Unit ID:</b>          Company Equipment ID:          Superseded Permit Number:          General Permit Category and Type:</p>	<p><b>T001</b>          Tanks 1-10          Oil &amp; Gas Well-Site Production Operations - Oil &amp; Gas Well-Site Production Operations w/ small flare (GP 12.1 effective 4/4/14)</p>



**Final Permit-to-Install and Operate**  
Chesapeake Exploration LLC - Jamar 15-13-6 Pad  
**Permit Number:** P0118329  
**Facility ID:** 0634005109  
**Effective Date:** 2/5/2015

## **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**  
Chesapeake Exploration LLC - Jamar 15-13-6 Pad  
**Permit Number:** P0118329  
**Facility ID:** 0634005109  
**Effective Date:** 2/5/2015

## **B. Facility-Wide Terms and Conditions**



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources Industrial, Commercial, and Institutional Boilers: B001 and B002. The U.S. EPA is responsible for the administration of the requirements of this rule at this time. It should be noted that the enforcement authority of the GACT requirements is not delegated to Ohio EPA at the time of this permit processing. The complete requirements of this rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.
3. The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B001, B002, B003, B004, B007, B010, B011, F001, F003, F004, P030, P031, P032, P033, any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
4. The permittee shall collect and record the following information each month for the emissions units identified in 3.:
  - a) the name and identification number of each HAP containing material employed (if applicable);
  - b) the identification of each individual HAP contained in each material employed (if applicable);
  - c) the HAP emission factor for each individual HAP and each type of operation;
  - d) the total individual HAP emissions for each HAP from all sources, in pounds or tons per month;
  - e) the total combined HAP emissions from all sources, in pounds or tons per month [the summation of the individual HAP emissions from d) above];
  - f) the updated rolling, 12-month summation of the individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
  - g) the updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Southwest Ohio Air Quality Agency. This information does not have to be kept on an individual emissions unit basis.
5. The permittee shall submit quarterly deviation reports which identify any exceedance of the HAP emission limitations outlined in 3. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year



and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).

**6. Emission Limitations:**

HAP emissions shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for combined HAPs, based on a rolling, 12-month summation for the emissions units listed in 3.

Applicable Compliance Method:

Compliance with the HAP emission limitations in 3 shall be demonstrated by the record keeping requirements specified in 4.

**7. The following abbreviations are used throughout this permit:**

NO<sub>x</sub> = Nitrogen oxides

CO = Carbon monoxide

VOC = Volatile organic compounds

PE = Particulate matter measurable by the applicable test methods in 40 CFR Part 60, Appendix A, "Standards of Performance for New Stationary Sources"

PM<sub>10</sub> = Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

SO<sub>2</sub> = Sulfur dioxide

TPY = Tons per year

mmBtu = million British thermal units

PTI = Permit to Install

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code

ORC = Ohio Revised Code



**Final Permit-to-Install and Operate**  
Chesapeake Exploration LLC - Jamar 15-13-6 Pad  
**Permit Number:** P0118329  
**Facility ID:** 0634005109  
**Effective Date:** 2/5/2015

## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group - Boilers No. 1 and No. 2: B001, B002**

EU ID	Operations, Property and/or Equipment Description
B001	238 MMBtu/hr pulverized coal-fired boiler (including 20 MMBtu natural gas burners for startup and supplemental fuel), equipped with baghouse and steam turbine
B002	238 MMBtu/hr pulverized coal-fired boiler (including 20 MMBtu natural gas burners for startup and supplemental fuel), equipped with baghouse and steam turbine

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

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)  <i>Best Available Technology (BAT)</i>	<u>When burning coal:</u> PE/PM <sub>10</sub> shall not exceed 0.031 pound per mmBtu; PE shall not exceed 0.01 grains/acf; NOx emissions shall not exceed 0.7 pound per mmBtu; VOC emissions shall not exceed 0.62 pound per hour; CO emissions shall not exceed 5.2 pounds per hour; SO <sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu; Hydrogen chloride (HCl) emissions shall not exceed 21.4 pounds per hour; and Hydrogen fluoride (HF) emissions shall not exceed 1.6 pounds per hour.  <u>When burning natural gas:</u> PE/PM <sub>10</sub> shall not exceed 0.020 pound per mmBtu; PE shall not exceed 0.01 grains/acf; NOx emissions shall not exceed 0.7 pound per mmBtu; VOC emissions shall not exceed 0.22 pounds per hour;



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>CO emissions shall not exceed 1.65 pounds per hour; and            SO<sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu.</p> <p><u>When burning any combination of fuels, emissions units B001 and B002, combined, shall not exceed the following emission limitations:</u>            VOC emissions shall not exceed 0.07 TPY*; and            CO emissions shall not exceed 0.65 TPY*.            PE/PM<sub>10</sub> shall not exceed 0.62 TPY*;            HCl emissions shall not exceed 1.67 TPY*; and            HF emissions shall not exceed 0.11 TPY*.            *based on rolling, 12-month summations.</p> <p>See b)(2)a., b)(2)b., and c)(1).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-15(O)(1), OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC 3745-17-10(C)(1) and OAC rule 3745-31-05(D).</p>
b.	<p>OAC rule 3745-31-05(D)</p> <p><i>Synthetic minor to avoid Prevention of Significant Deterioration (PSD) and 40 CFR 63, Subpart DDDDD</i></p>	<p><u>When burning any combination of fuels, emissions units B001 and B002, combined, shall not exceed the following emission limitations:</u></p> <p>SO<sub>2</sub> emissions shall not exceed 33.03 TPY*; and</p> <p>NO<sub>x</sub> emissions shall not exceed 14.45 TPY*.</p> <p>*based on rolling, 12-month summations.</p> <p>See Section B.3. and c(5).</p>
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		stack shall not exceed 20 percent opacity, as a 6-minute average, except as specified by rule.
d.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 pound per mmBtu of actual heat input when burning natural gas.
e.	OAC rule 3745-17-10(C)(1)	The emission limitation established by this rule is less stringent than that established by OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-15(O)(1)	SO <sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

(2) Additional Terms and Conditions

- a. NOx emissions shall not exceed 0.7 pound per mmBtu of actual heat input. This limit is based on a review by U.S. EPA of the performance test for emissions units B001 and B002, which indicated that the NOx emissions limit of 0.6 pound per mmBtu in the Prevention of Significant Deterioration (PSD) permit 5-79-A-28 cannot be attained and maintained.
- b. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, fuel restrictions, operating rate restrictions and the use of a fabric filter.
- c. The hourly emission limitations for CO, VOC, HCl, and HF are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

c) Operational Restrictions

- (1) The emissions units shall utilize the manufacturer's best design for minimizing NOx emissions. The design shall utilize overfire, side fire air, or equivalent design technology, including but not limited to low NOx burners, to reduce flame temperature and limit combustion air (ref. PSD 5-79-A-23 FR Vol 44 No. 215 issued Nov. 5, 1979).
- (2) The daily average operating rate for each emissions unit shall not exceed 238 mmBtu/hour and 180,000 pounds of steam per hour.
- (3) The quality of coal burned in each emissions unit shall meet the following specification on an as-burned basis:
  - a. A combination of ash content and heat content sufficient to comply with the particulate emission limitations specified in b)(1)a.; and



- b. A combination of sulfur content and heat content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 pounds per mmBtu of actual heat input.

Compliance with the above mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

- (4) The pressure drop across the baghouse for each emissions unit shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation.
- (5) The combined maximum heat input rate for emissions units B001 and B002 shall not exceed 41,285 MMBtu per year, based upon a rolling, 12-month summation of the actual heat input rate.

The permittee has existing records to demonstrate compliance with this permit limit.

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

- (1) The permittee shall collect representative grab samples of the coal burned in the emissions units from each shipment of coal received for burning. Representative samples may be obtained via composite sampling from the coal handling system. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected during that calendar month shall be combined into one composite sample.

Each monthly composite sample of coal shall be analyzed 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 appropriate Ohio EPA District Office or local air agency.

The permittee shall maintain monthly records of the total quantity of coal burned, and the results of the analyses for ash content, sulfur content, and heat content.

- (2) The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse of each emissions unit while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on an hourly basis.



- (3) The permittee shall maintain daily records of the following information:
- a. the heat input for each emissions unit, in mmBtu/hr;
  - b. the hours of operation for each emissions unit; and
  - c. the daily average operating rate, in mmBtu/hr, for each emissions unit.

To determine heat input, the permittee shall properly operate and maintain existing equipment to continuously monitor and record the steam load, in pounds/hour, from each emissions unit.

The permittee shall maintain a written quality assurance/quality control plan for the continuous steam load monitoring system designed to ensure continuous valid and representative readings of steam load, in pounds of steam/hour. The plan shall include a description of preventive maintenance activities. A logbook dedicated to the continuous steam monitoring system must be kept on site and be available for inspection during regular office hours.

- (4) When combusting coal, the permittee shall perform daily checks, when each emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving the 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.

- (5) The permittee shall maintain monthly records of the following information:
- a. the usage rates for each fuel (natural gas and coal) burned in each emissions unit;



- b. the actual heat input rate for each emissions unit; and
  - c. the rolling, 12-month summation of the actual heat input rate for emissions units B001 and B002, combined.
- (6) The permittee shall maintain monthly records of the following information for emission units B001 and B002, combined, in order to monitor compliance with the rolling, 12-month summation emissions limitations:
- a. the total emissions, in tons, for SO<sub>2</sub>, NO<sub>x</sub>, PE/PM<sub>10</sub>, VOC, CO, HCl, and HF when burning any combination of fuels; and
  - b. the rolling, 12-monthly summation emissions total, in tons, for SO<sub>2</sub>, NO<sub>x</sub>, PE/PM<sub>10</sub>, VOC, CO, HCl, and HF when burning any combination of fuels (the total amount of emissions calculated for the current month plus the total amount of emissions for the previous eleven calendar months).
- e) Reporting Requirements
- (1) The permittee shall submit quarterly reports on the quality and quantity of the coal burned in each emissions unit. These reports shall include the following information for the emissions unit for each month during the calendar quarter:
- a. the total quantity of coal burned (tons);
  - b. the average ash content (percent) of the coal burned;
  - c. the average sulfur content (percent) of the coal burned;
  - d. the average heat content (Btu/pound) of the coal burned; and
  - e. the calculated, average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) for the coal burned.

Compliance with the sulfur dioxide emission limit shall be determined each month by calculating the average monthly sulfur dioxide emission rate using the results of the analyses of the monthly composite sample for sulfur content and heat content.

These quarterly reports shall be submitted by February 15, May 15, August 15 and November 15 of each year, unless otherwise specified by the appropriate Ohio EPA District Office or local air agency, and shall cover the data obtained during the previous calendar quarters.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in c)(4);
  - b. all exceedances of the rolling, 12-month SO<sub>2</sub> and NO<sub>x</sub> emissions limitations;



- c. all periods of time during which the steam load exceeded 180,000 lbs of steam per hour;
- d. all periods of time during which the daily average operating rate exceeded 238 mmBtu/hour; and
- e. all exceedances of the rolling, 12-month heat input rate limitation for emissions units B001 and B002 combined;

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.
  - (4) The permittee shall submit annual reports which specify the total PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, HCl, and HF emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.
  - (5) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated by the methods specified in 40 CFR 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
    - b. Emission Limitations:

PE shall not exceed 0.031 pound per mmBtu of actual heat input and 0.01 grain per actual cubic foot when burning coal.



Applicable Compliance Method:

The permittee shall demonstrate compliance with the above PE limitations based upon the results of emission testing required in f)(2) of this permit.

c. Emission Limitation:

PE shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs filterable particulate/mm cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitations through emission testing performed in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 0.7 pound per mmBtu of actual heat input when burning coal.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above NO<sub>x</sub> emission limitation based upon the results of emission testing required in f)(2) of this permit.

e. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above SO<sub>2</sub> emission limitation based on the monitoring and record keeping requirements in d)(1), and the reporting requirements in e)(1) of this permit. The SO<sub>2</sub> emission rate shall be calculated pursuant to the equation specified in OAC rule 3745-18-04(F). When multiple fuels are burned, the SO<sub>2</sub> emission rate is the sum of SO<sub>2</sub> from all fuels burned divided by the sum of the Btu value of all fuels burned.

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



f. Emission Limitations:

0.62 lb VOC/hr, when burning coal; and  
0.22 lbs VOC/hr, when burning natural gas.

Applicable Compliance Method:

The hourly emission limitations are based upon the emission unit's potential to emit and related emission factors found in AP-42, Fifth Edition, Section 1. External Combustion Sources.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation through emission tests performed in accordance with Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.

g. Emission Limitations:

5.2 lbs CO/hr, when burning coal; and  
1.65 lbs CO/hr, when burning natural gas.

Applicable Compliance Method:

The hourly emission limitations are based upon the emission unit's potential to emit and related emission factors found in AP-42, Fifth Edition, Section 1. External Combustion Sources.

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

h. Emission Limitation:

21.4 lbsHCl/hr, when burning coal

Applicable Compliance Method:

The hourly emission limitations are based upon the emission unit's potential to emit and the permittee's emissions data and technical analysis found in the application for PTI 14-05515, submitted November 24, 2003.

If required, the permittee shall demonstrate compliance with the hourly HCl emission limitation through emission tests performed in accordance with Methods 1-4 and 26 of 40 CFR Part 60, Appendix A.

i. Emission Limitation:

1.6 lbs HF/hr, when burning coal



Applicable Compliance Method:

The hourly emission limitations are based upon the emission unit's potential to emit and related emission factors found in AP-42, Fifth Edition, Section 1. External Combustion Sources, Table 1.1-15, dated 1998.

If required, the permittee shall demonstrate compliance with the hourly HF emission limitation through emission tests performed in accordance with Methods 1-4 and 26A of 40 CFR Part 60, Appendix A.

j. Emission Limitations:

The total emissions from emissions units B001 and B002 combined shall not exceed the following emission limitations:

33.03 tons of SO<sub>2</sub> emissions per rolling, 12-month period;  
14.45 tons of NO<sub>x</sub> emissions per rolling, 12-month period;  
0.62 tons of PE/PM<sub>10</sub> emissions per rolling, 12-month period;  
0.07 tons of VOC emissions per rolling, 12-month period;  
0.65 tons of CO emissions per rolling, 12-month period;

1.67 tons of HCl emissions per rolling, 12-month period; and  
0.11 tons of HF emissions per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the SO<sub>2</sub>, NO<sub>x</sub>, PE/PM<sub>10</sub>, HCl, and HF emission limitations specified above shall be determined by the record keeping requirements specified in d)(6).

(2) If not previously conducted and reported, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within six months after issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission limit for particulate of 0.031 lb/mmBtu, 0.01 grains/acf of exhaust gases, and for NO<sub>x</sub> of 0.7 lb/mmBtu when burning coal.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 5 of 40 CFR Part 60, Appendix A for particulate, and;  
Method 7 of 40 CFR Part 60, Appendix A for NO<sub>x</sub>.

Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.



- d. During the test, the temperature, the pressure drop across the baghouse, and the steam load shall be recorded at least every 15 minutes.
- e. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- (3) Compliance with the combined heat input rate limitation shall be demonstrated by the recordkeeping required in d)(5).

g) Miscellaneous Requirements

- (1) None.