

Facility ID: 1431072121 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431072121 Emissions Unit ID: F012 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
barge unloading and material handling at middle dock	OAC rule 3745-31-05 (PTI 14-4109)	72 lbs/hr of particulate matter (PM) and 26.35 lbs/hr of particulate matter less than 10 microns in diameter (PM10); See Term A.2.g. Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year (tpy) of PM and 42.99 tpy of PM10. See Section B.
	40 CFR, Part 60, Subpart Y	best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See Section A.2.)
	OAC rule 3745-17-07(B)(1)	less stringent than the limitation specified in OAC rule 3745-17-07(B)(1)
	OAC rule 3745-17-08(B)	Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule. less stringent than the control measures established under OAC rule 3745-31-05

2. Additional Terms and Conditions

- (a) A suitable dust suppressant shall be applied as needed to eliminate visible emissions during barge unloading of coal and material handling of coal.
A suitable dust suppressant shall be applied as needed to ensure compliance with the visible emission limitations in Section A.1. of this permit during barge unloading and material handling of any material other than coal.
The dust suppressant shall be applied at all points indicated in the attached diagrams (Attachment 1 from PTI 14-4109).
All drop heights (from clamshell, conveyors, front-end loader, and other equipment) shall be minimized.
All conveyors used to process salt shall be covered.
Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
The hourly PM and PM10 emission limitations outlined in Section A.1 are based upon the emissions unit's maximum rated capacity and the control requirements outlined in this section, and represent the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

B. Operational Restrictions

1. Emissions unit F012 shall not be operated in excess of its maximum rated capacity (1,200 tons/hr).
2. No more than 1,530,000 tpy of coal, based on a rolling, 12-month summation, shall be received at emissions units F011, F012 and F013 combined.

3. No more than 2,820,000 tpy of any material other than coal, based on a rolling, 12-month summation, shall be received at emissions units F011, F012 and F013 combined.
4. At least 30 days prior to receiving any material other than coal, iron ore, gravel, or salt, the permittee shall provide written notification to the Hamilton County Department of Environmental Services (HCDES). Such notification shall include information, in an acceptable form, sufficient to determine that the emissions associated with the proposed change in materials will comply with the emission limits in Section A.1 and the control requirements in Section A.2 of this permit.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform inspections on this emissions unit on at least an hourly basis, to determine if visible particulate emissions are being emitted from the barge unloading and material handling of coal and all other materials.

The permittee may, upon receipt of approval from HCDES, modify the above-mentioned frequency if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the visible emissions requirements.
2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee shall maintain the following records for this emissions unit while unloading and conveying coal and all other materials:
 - a. hourly records that verify that each unloading and conveying operation occurring at that time was checked for visible emissions (this record shall include the date and time of the observation and indicate the presence or absence of any visible emissions); and
 - b. daily records that document the times that dust suppressant was applied at the required locations during barge unloading and material handling.
4. The permittee shall maintain the following monthly records for emissions units F011, F012 and F013 combined:
 - a. the amount, in tons, of coal received and of all other material, except coal, received;
 - b. the rolling, 12-month summation of the amount of coal received (this information shall include the current month and the preceding eleven calendar months); and
 - c. the rolling, 12-month summation of the amount of all materials, other than coal, received (this information shall include the current month and the preceding eleven calendar months).

D. Reporting Requirements

1. The permittee shall immediately notify HCDES if the control measure requirements for barge unloading and material handling of coal and all other materials, as outlined in Section A.2, are not met. A report explaining the cause of and the extent of the violation shall be submitted within thirty (30) days of the occurrence.
2. The permittee shall notify HCDES within thirty (30) days of any exceedance of the throughput limitations contained in Section B of this permit.
3. The permittee shall submit semi-annual reports to HCDES which contain the following:
 - a. the rolling, 12-month summation, for each month, of the amount of each material received at emissions units F011, F012 and F013 combined; and
 - b. the rolling, 12-month summation, for each month, of the summation of all materials, other than coal, received at emissions units F011, F012 and F013 combined.

These semi-annual reports shall be submitted by January 30 and July 30 of each year and shall cover the previous six calendar months (July through December and January through June, respectively).

E. Testing Requirements

1. Compliance with the emission limits in Section A.1 and the annual operating restrictions in Section B of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:
72 lbs of PM/hr
Applicable Compliance Method:
The worst case hourly PM emissions are represented by coal unloading and handling and shall be calculated by the following method:

For barge unloading:

$$E = (\text{maximum rated capacity of the emissions unit, in tons per hour}) \times (F1) \times (1-CE)$$

where:

E = PM emission rate (lbs/hr)

max. rated capacity = 1,200 tons/hr

F1 = emission factor for unloading, which is the ratio of the pounds of PM emitted to the amount of material unloaded, 0.40 lb of PM/ton of coal (from RACM, Table 2.19-2)

CE = assumed control efficiency provided by the control measures outlined in Section A.2 of this permit (i.e., wetting and chemical suppressants), 0.90

For conveying:

$$E = (\text{maximum rated capacity of the emissions unit, in tons per hour}) \times (F2) \times (1-CE)$$

where:

E = PM emission rate (lbs/hr)
 max. rated capacity = 1,200 tons/hr
 F2 = emission factor for conveying, which is the ratio of the pounds of PM emitted to the amount of material conveyed, 0.20 lb of PM/ton of coal (from RACM, Table 2.19-2)
 CE = assumed control efficiency provided by the control measures outlined in Section A.2 of this permit (i.e., wetting and chemical suppressants), 0.90
 The total hourly PM emissions shall be the summation of the PM emissions from the barge unloading and conveying operations for this emissions unit, in lbs/hour.
 Emission Limitation:
 26.35 lbs/hr of PM10

Applicable Compliance Method:
 The worst case PM10 emissions shall be calculated by multiplying the total hourly PM emissions by the decimal fraction of particulate matter that is less than or equal to 10 microns in diameter, or 0.366.

Emission Limitation:
 117.46 tpy of PM from emissions units F011, F012 and F013 combined

Applicable Compliance Method:
 The worst case yearly PM emissions result from the combination of the maximum allowable unloading and handling rates of coal and iron ore and shall be calculated by the following method:

For barge unloading:

$$E = [(\text{maximum amount of coal permitted to be received at F011, F012, and F013, in tpy}) \times (F1) \times (1-CE) + (\text{max. amount of other materials permitted to be received at F011, F012, and F013, in tpy}) \times (F3) \times (1-C.F.) \times (1-CE)] / 2000 \text{ lbs/ton}$$

where:

E = PM emission rate (tpy)
 max. amount of coal received = 1,530,000 tons of coal/year
 max. amount of other material received = 2,820,000 tons of iron ore/year
 F1 = emission factor for unloading coal, 0.40 lb of PM/ton of coal (from RACM, Table 2.19-2)
 F3 = emission factor for unloading iron ore, which is the ratio of the pounds of PM emitted to the amount of material unloaded, 0.03 lb of PM/ton of iron ore (from RACM, Table 2.2.2-1)
 CE = assumed control efficiency, 0.90
 C.F. = correction factor for RACM emission factor due to a higher moisture content in the iron ore over what is represented in RACM, 0.75.

For conveying:

$$E = [(\text{maximum amount of coal permitted to be received at F011, F012, and F013, in tpy}) \times (F2) \times (1-CE) + (\text{max. amount of other materials permitted to be received at F011, F012, and F013, in tpy}) \times (F4) \times (1-CE) \times (1-C.F.)] / 2000 \text{ lbs/ton}$$

where:

E = PM emission rate (lbs/hr)
 max. amount of coal received = 1,530,000 tons of coal/year
 max. amount of material received = 2,820,000 tons of iron ore/year
 F2 = emission factor for conveying coal, 0.20 lb of PM/ton of coal (from RACM, Table 2.19-2)
 F4 = emission factor for conveying iron ore, which is the ratio of the pounds of PM emitted to the amount of material conveyed, 2.0 lbs of PM/ton of iron ore (from RACM, Table 2.2.2-1)
 CE = assumed control efficiency, 0.90
 C.F. = correction factor for RACM emission factor, 0.75

The total yearly PM emissions shall be the summation of the PM emissions from the barge unloading and conveying operations for emissions units F011, F012, and F013, in tpy.

Emission Limitation:
 42.99 tpy of PM10 from emissions units F011, F012, and F013 combined

Applicable Compliance Method:
 The worst case yearly PM10 emissions shall be calculated by multiplying the total yearly combined PM emissions from emissions units F011, F012, and F013 by the decimal fraction of particulate matter that is less than or equal to 10 microns in diameter, or 0.366.

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

Applicable Compliance Method:
 Compliance shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(3).

Production Limitations:
 No more than 1,530,000 tpy of coal, based on a rolling, 12-month summation, shall be received at emissions units F011, F012 and F013 combined.

No more than 2,820,000 tpy of any material other than coal, based on a rolling, 12-month summation, shall be received at emissions units F011, F012 and F013 combined.

Applicable Compliance Method:
 Compliance with the above limitations shall be determined using the records maintained pursuant to Section C.4 of this permit.

F. Miscellaneous Requirements

1. If probable cause exists indicating that this emissions unit is causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3745-15-07, the owner or operator of the emissions unit shall be required to submit and implement a control program which will bring the emissions unit into compliance.