

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

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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.

- [Go to Part II for Emissions Unit F011](#)
- [Go to Part II for Emissions Unit F012](#)
- [Go to Part II for Emissions Unit F013](#)
- [Go to Part II for Emissions Unit F015](#)
- [Go to Part II for Emissions Unit F016](#)

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

Facility ID: 1431072121 Emissions Unit ID: F011 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

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>
F011-barge unloading and material handling at eastern dock	OAC rule 3745-31-02(A)(2) (PTI 14-4109)	Particulate emissions (PE) shall not exceed 30 pounds per hour and particulate emissions 10 microns and less in diameter (PM10) shall not exceed 10.98 pounds per hour. See terms A.2.a and A.2.b. Annual combined PE from F011, F012, and F013 shall not exceed 117.46 tons per year. Annual combined PM10 emissions from F011, F012, and F013 shall not exceed 42.99 tons per year. See section B.1, B.2 and B.3.
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	See term A.2.a.

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:
 - i. releasing material into the receiving hopper from the clam shell barge unloader only when the opening of the clam shell unloader is below the edge of the receiving hopper so as to minimize or eliminate visible emissions of fugitive dust from this unit;
 - ii. enclosing the conveyor so as to minimize or eliminate visible emissions of fugitive dust during conveying of material; and
 - iii. applying a suitable dust suppressant to all dust producing points as outlined in the Attachment 1 of PTI 14-4109 issued March 26, 1997. The dust suppressant shall be applied as needed to minimize or eliminate fugitive dust emissions.

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 3745-31-02(A)(2). Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The hourly PE 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 limitations.

B. Operational Restrictions

1. The maximum hourly capacity of this emissions unit is 500 tons.
2. No more than 1,530,000 tons per year 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 tons per year 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. 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 limitations 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 at least an hourly basis when the emissions unit is in operation, 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 the Ohio EPA field office, 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 rolling, 12-month summation of the amount of coal received (this information shall include the current month and the preceding eleven calendar months); and
 - b. 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).
5. The permittee shall maintain the daily records of the amount, in tons, of each material received for emissions units F011, F012 and F013, combined.

D. Reporting Requirements

1. The permittee shall immediately notify the Ohio EPA field office 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 the Ohio EPA field office within thirty (30) days of any exceedance of the throughput limitations outlined in this permit.
3. The permittee shall submit semi-annual reports to the Ohio EPA field office 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. Emission Limitation:
Particulate emissions (PE) shall not exceed 30 pounds per hour.
Applicable Compliance Method:
The worst case hourly PE 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:

$$E = \text{PE rate (lbs/hr)}.$$

max. rated capacity = 500 tons/hr.

F1 = emission factor for unloading, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.40 lb of PE/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 = PE rate (lbs/hr).

max. rated capacity = 500 tons/hr.

F2 = emission factor for conveying, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 0.20 lb of PE/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 PE shall be the summation of the PE from the barge unloading and conveying operations for this emissions unit, in lbs/hour.

2. Emission Limitation:

Particulate emissions 10 microns and less in diameter (PM10) shall not exceed 10.98 pounds per hour.

Applicable Compliance Method:

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

3. Emission Limitations:

Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year of PE.

Applicable Compliance Method:

The worst case yearly PE 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 = PE 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 PE/ton of coal (from RACM, Table 2.19-2).

F3 = emission factor for unloading iron ore, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.03 lb of PE/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 = PE 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 PE/ton of coal (from RACM, Table 2.19-2).

F4 = emission factor for conveying iron ore, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 2.0 lbs of PE/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 PE shall be the summation of the PE from the barge unloading and conveying operations for emissions units F011, F012, and F013, in tpy.

4. Emission Limitation:

Annual combined emissions from F011, F012, and F013 shall not exceed 42.99 tons per year of PM10.

Applicable Compliance Method:

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

5. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

- 6. 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. None

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

[Go to the top of this document](#)

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>
F012-barge unloading and material handling at middle dock	OAC rule 3745-31-05(A)(3) (PTI 14-4109)	Particulate emissions (PE) shall not exceed 72 pounds per hour and particulate emissions 10 microns and less in diameter (PM10) shall not exceed 26.35 pounds per hour. See terms A.2.a and A.2.b. Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year of PE and 42.99 tons per year of PM10. See Sections B.1, B.2 and B.3.
	40 CFR, Part 60, Subpart Y	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-07(B)(1).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	See term A.2.a.

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:
 - i. releasing material into the receiving hopper from the clam shell barge unloader only when the opening of the clam shell unloader is below the edge of the receiving hopper so as to minimize or eliminate visible emissions of fugitive dust from this unit;
 - ii. enclosing the conveyor so as to minimize or eliminate visible emissions of fugitive dust during conveying of material; and
 - iii. applying a suitable dust suppressant to all dust producing points as outlined in the Attachment 1 of PTI 14-4109 issued March 26, 1997. The dust suppressant shall be applied as needed to minimize or

eliminate fugitive dust emissions.

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(A)(3). Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The hourly PE 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 limitations.

B. Operational Restrictions

1. The maximum hourly capacity of this emissions unit is 1200 tons.
2. No more than 1,530,000 tons per year 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 tons per year 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 Ohio EPA field office. 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 limitations 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 at least an hourly basis when the emissions unit is in operation, 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 the Ohio EPA field office, 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 rolling, 12-month summation of the amount of coal received (this information shall include the current month and the preceding eleven calendar months); and
 - b. 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).
5. The permittee shall maintain the daily records of the amount, in tons, of each material received for emissions units F011, F012 and F013, combined.

D. Reporting Requirements

1. The permittee shall immediately notify the Ohio EPA field office 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 the Ohio EPA field office within thirty (30) days of any exceedance of the throughput limitations outlined in this permit.
3. The permittee shall submit semi-annual reports to the Ohio EPA field office 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. Emission Limitation:
Particulate emissions (PE) shall not exceed 72 pounds per hour.
Applicable Compliance Method:
The worst case hourly PE 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:

$E = \text{PE rate (lbs/hr)}$.

max. rated capacity = 1200 tons/hr.

$F1 = \text{emission factor for unloading, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.40 lb of PE/ton of coal (from RACM, Table 2.19-2)}$.

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

For conveying:

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

where:

$E = \text{PE rate (lbs/hr)}$.

max. rated capacity = 1200 tons/hr.

$F2 = \text{emission factor for conveying, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 0.20 lb of PE/ton of coal (from RACM, Table 2.19-2)}$.

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

The total hourly PE shall be the summation of the PE from the barge unloading and conveying operations for this emissions unit, in lbs/hour.

2. Emission Limitation:
Particulate emissions 10 microns and less in diameter (PM10) shall not exceed 26.35 pounds per hour.

Applicable Compliance Method:
The worst case PM10 emissions shall be calculated by multiplying the total hourly PE emissions by the decimal fraction of particulate emissions that is less than or equal to 10 microns in diameter, or 0.366.
3. Emission Limitation:
Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year of PE.
Applicable Compliance Method:
The worst case yearly PE 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:

 $E = \text{PE rate (tpy)}$.
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.
 $F1 = \text{emission factor for unloading coal, 0.40 lb of PE/ton of coal (from RACM, Table 2.19-2)}$.
 $F3 = \text{emission factor for unloading iron ore, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.03 lb of PE/ton of iron ore (from RACM, Table 2.2.2-1)}$.
 $CE = \text{assumed control efficiency} = 0.90.$
 $C.F. = \text{correction factor for RACM emission factor due to a higher moisture content in the iron ore over what is represented in RACM, 0.75}.$

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:

 $E = \text{PE rate (lbs/hr)}$.
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.
 $F2 = \text{emission factor for conveying coal, 0.20 lb of PE/ton of coal (from RACM, Table 2.19-2)}$.
 $F4 = \text{emission factor for conveying iron ore, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 2.0 lbs of PE/ton of iron ore (from RACM, Table 2.2.2-1)}$.
 $CE = \text{assumed control efficiency} = 0.90.$
 $C.F. = \text{correction factor for RACM emission factor} = 0.75.$
The total yearly PE shall be the summation of the PE from the barge unloading and conveying operations for emissions units F011, F012, and F013, in tpy.
4. Emission Limitation:
Annual combined emissions from F011, F012, and F013 shall not exceed 42.99 tons per year of PM10.

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

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

6. 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. None

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

Facility ID: 1431072121 Emissions Unit ID: F013 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

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>
F013-barge unloading and material handling at west dock	OAC rule 3745-31-05(A)(3) (PTI 14-4109)	Particulate emissions (PE) shall not exceed 72 pounds per hour and particulate emissions 10 microns in diameter and less (PM10) shall not exceed 26.35 pounds per hour. See Terms A.2.a and A.2.b. Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year of PE and 42.99 tons per year of PM10.
	40 CFR, Part 60, Subpart Y	See Sections B.1, B.2 and B.3. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-07(B)(1).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	See term A.2.a.

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:
 - i. releasing material into the receiving hopper from the clam shell barge unloader only when the opening of the clam shell unloader is below the edge of the receiving hopper so as to minimize or eliminate visible emissions of fugitive dust from this unit;

ii. enclosing the conveyor so as to minimize or eliminate visible emissions of fugitive dust during conveying of material; and

iii. applying a suitable dust suppressant to all dust producing points as outlined in the Attachment 1 of PTI 14-4109 issued March 26, 1997. The dust suppressant shall be applied as needed to minimize or eliminate fugitive dust emissions.

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(A)(3). Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The hourly PE 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 limitations.

B. Operational Restrictions

1. The maximum hourly capacity of this emissions unit is 1200 tons.
2. No more than 1,530,000 tons per year 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 tons per year 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 Ohio EPA field office. 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 limitations 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 at least an hourly basis when the emissions unit is in operation, 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 the Ohio EPA field office, 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 rolling, 12-month summation of the amount of coal received (this information shall include the current month and the preceding eleven calendar months); and
 - b. 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).
5. The permittee shall maintain the daily records of the amount, in tons, of each material received for emissions units F011, F012 and F013, combined.

D. Reporting Requirements

1. The permittee shall immediately notify the Ohio EPA field office 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 the Ohio EPA field office within thirty (30) days of any exceedance of the throughput limitations outlined in this permit.
3. The permittee shall submit semi-annual reports to the Ohio EPA field office 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. Emission Limitation:
Particulate emissions (PE) shall not exceed 72 pounds per hour.

Applicable Compliance Method:

The worst case hourly PE 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 = PE rate (lbs/hr).

max. rated capacity = 1200 tons/hr.

F1 = emission factor for unloading, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.40 lb of PE/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 = PE rate (lbs/hr).

max. rated capacity = 1200 tons/hr.

F2 = emission factor for conveying, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 0.20 lb of PE/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 PE shall be the summation of the PE from the barge unloading and conveying operations for this emissions unit, in lbs/hour.

2. Emission Limitation:
Particulate emissions 10 microns and less in diameter (PM10) shall not exceed 26.35 pounds per hour.

Applicable Compliance Method:

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

3. Emission Limitation:
Annual combined emissions from F011, F012, and F013 shall not exceed 117.46 tons per year of PE.

Applicable Compliance Method:

The worst case yearly PE 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 = PE 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 PE/ton of coal (from RACM, Table 2.19-2).

F3 = emission factor for unloading iron ore, which is the ratio of the pounds of PE emitted to the amount of material unloaded, 0.03 lb of PE/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 = PE 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 PE/ton of coal (from RACM, Table 2.19-2).

F4 = emission factor for conveying iron ore, which is the ratio of the pounds of PE emitted to the amount of material conveyed, 2.0 lbs of PE/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 PE shall be the summation of the PE from the barge unloading and conveying operations for emissions units F011, F012, and F013, in tpy.

4. Emission Limitation:
Annual combined emissions from F011, F012, and F013 shall not exceed 42.99 tons per year of PM10.

Applicable Compliance Method:

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

- 5. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).
- 6. 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. None

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

Facility ID: 1431072121 Emissions Unit ID: F015 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

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>
F015-coal crushing and screening	OAC rule 3745-31-02(A)(2) (PTI 14-4109)	Particulate emissions (PE) shall not exceed 9 pounds per hour and particulate emissions 10 microns and less in diameter (PM10) shall not exceed 3.29 pounds per hour. See term A.2.a. Annual emissions shall not exceed 13.77 tons per year of PE and 5.04 tons per year of PM10.
	OAC rule 3745-17-07(B)(1)	See Sections B.1 and B.2. Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	See term A.2.a.

- 2. **Additional Terms and Conditions**
 - (a) The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:
 - i. all drop heights from stackers shall be minimized; and
 - ii. the permittee shall apply a suitable dust suppressant to all dust producing points as outlined in the

Attachment 1 of PTI 14-4109 issued March 26, 1997. The dust suppressant shall be applied as needed to during coal crushing and screening to ensure compliance with the emission visible limitation.

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 3745-31-02(A)(2). Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The hourly PE 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 limitations.

B. Operational Restrictions

1. The maximum hourly capacity of this emissions unit is 500 tons.
2. No more than 1,530,000 tons per year of coal, based on a rolling, 12-month summation, shall be processed through emissions unit F015.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform inspections on at least an hourly basis when the emissions unit is in operation, to determine if visible particulate emissions are being emitted from the coal crushing and screening operation.

The permittee may, upon receipt of approval from the Ohio EPA field office, 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:
 - a. hourly records that verify that the coal crushing and screening 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);
 - b. daily records that document the times that dust suppressant was applied at the required locations during coal crushing and screening;
 - c. daily records that document the amount of coal processed, in tons;
 - d. the rolling, 12-month summation of the amount of coal received (this information shall include the current month and the preceding eleven calendar months).

D. Reporting Requirements

1. The permittee shall immediately notify the Ohio EPA field office if the control measure requirements, 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 the Ohio EPA field office within thirty (30) days of any exceedance of the throughput limitations outlined in this permit.
3. The permittee shall submit semi-annual reports to the Ohio EPA field office which contain the following:
 - a. the rolling, 12-month summation, for each month, of the amount of coal processed.

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. Emission Limitation:
Particulate emissions (PE) shall not exceed 9 pounds per hour.

Applicable Compliance Method:
The worst case hourly PE shall be calculated by the following method:

$$E = (\text{maximum rated capacity of the emissions unit, in tons per hour}) \times (F1+F2) \times (1-CE).$$

where:

$$E = \text{PE rate (lbs/hr)}.$$

$$\text{max. rated capacity} = 500 \text{ tons/hr.}$$

F1 = emission factor for primary crushing of coal, which is the ratio of the pounds of PE emitted to the amount of coal crushed, 0.02 lb of PE/ton of coal (from RACM, Table 2.19-2).

F2 = emission factor for screening of coal, which is the ratio of the pounds of PE emitted to the amount of coal screened, 0.16 lb of PE/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.

2. Emission Limitation:
Particulate emissions 10 microns and less in diameter (PM10) shall not exceed 3.29 pounds per hour.

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

3. Emission Limitation:
Particulate emissions (PE) shall not exceed 13.77 tons per year.

Applicable Compliance Method:

The worst case yearly PE result from the maximum allowable annual throughput and shall be calculated by the following method:

$$E = (\text{maximum annual throughput, in tons per year}) \times (F1 + F2) \times (1 - CE) / 2,000 \text{ lbs per ton.}$$

where:

E = PE rate (tpy).

max. amount of coal throughput = 1,530,000 tons of coal/year.

F1 = emission factor for primary crushing of coal, 0.02 lb of PE/ton of coal (from RACM, Table 2.19-2).

F2 = emission factor for screening of coal, 0.16 lb of PE/ton of coal (from RACM, Table 2.19-2).

CE = estimated decimal fraction control efficiency = 0.90

4. Emission Limitation:

Particulate emissions 10 microns in diameter (PM10) shall not exceed 5.04 tons per year.

Applicable Compliance Method:

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

5. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

6. Production Limitations:

No more than 1,530,000 tpy of coal, based on a rolling, 12-month summation, shall be processed through emissions unit F015.

Applicable Compliance Method:

Compliance with the above limitations shall be determined using the records maintained pursuant to Section C.3 of this permit.

F. **Miscellaneous Requirements**

1. None.

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

Facility ID: 1431072121 Emissions Unit ID: F016 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

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 loading of various material (western dock)	OAC rule 3745-31-05(A)(3) (PTI 14-4705)	Particulate emissions (PE) shall not exceed 21.6 pounds per hour and particulate emissions 10 microns and less in diameter (PM10) shall not exceed 7.9 pounds per hour. See terms A.2.a and A.2.b. Annual emissions shall not exceed 3.6 tons per year of PE and 1.3 tons per year of PM10.

	See Sections B.1 and B.2.
40 CFR, Part 60, Subpart Y	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-07(B)(1).
OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, except as provided by rule.
OAC rule 3745-17-08(B)	See term A.2.a.

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:
- i. all drop heights shall be minimized and the permittee shall employ a telescoping spout so as to minimize or eliminate visible emissions of fugitive dust from this unit;
 - ii. enclosing the conveyor so as to minimize or eliminate visible emissions of fugitive dust during conveying of material; and
 - iii. applying a suitable dust suppressant to all dust producing points as outlined in the Attachment 1 of PTI 14-4109 issued March 26, 1997. The dust suppressant shall be applied as needed to minimize or eliminate fugitive dust emissions.

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(A)(3). Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The hourly PE 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 limitations.

B. Operational Restrictions

1. The maximum hourly capacity of this emissions unit is 600 tons.
2. The maximum annual production rate for this emissions unit shall not exceed 200,000 tons per year, based upon a rolling, 12-month summation of the production rates.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform inspections on at least an hourly basis when the emissions unit is in operation, to determine if visible particulate emissions are being emitted from the barge operation.

The permittee may, upon receipt of approval from the Ohio EPA field office, 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:
 - a. hourly records that verify that the barge loading operation occurring at that time was checked for visible emissions,
 - b. daily records that document the times that wet suppressant was applied at each of the transfer points associated with this emissions unit,
 - c. daily records that document the amount of tons of each material processed,
- d. the rolling, 12-month summation of the amount of material received (this information shall include the current month and the preceding eleven calendar months).

D. Reporting Requirements

1. At least 14 days prior to loading any material other than coal, the permittee shall provide written notification to the Ohio EPA field office. 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.
2. The permittee shall immediately notify the Ohio EPA field office if the control measure requirements for this emissions unit, as outlined in Section A.2, are not met. A report explaining the cause of and extent of the violation shall be submitted within thirty (30) days of the occurrence.
3. The permittee shall submit quarterly deviation reports that identify all exceedances of the rolling, 12-month summation production rate limitation.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General terms and Conditions of this permit.

E. Testing Requirements

1. Emission Limitation:
Particulate emissions (PE) shall not exceed 21.6 pounds per hour.

Applicable Compliance Method:

The worst case hourly PE result from processing coal and shall be calculated by the following method:

$$E = (\text{maximum rated capacity of the emissions unit, in tons per hour}) \times (F1 + F2) \times (1-CEw) \times (1-CEc)$$

where:

E = PE rate (lbs/hr).

max. rated capacity = 600 tons/hr.

F1 = emission factor for loading of coal, which is the ratio of the pounds of PE emitted to the amount of coal loaded, 0.2 lb of PE/ton of coal (from RACM, Table 2.19-2).

F2 = emission factor for conveying coal, which is the ratio of the pounds of PE emitted to the amount of coal conveyed, 0.4 lb of PE/ton of coal (from RACM, Table 2.19-2).

CEw = estimated control efficiency provided by water suppressant as outlined in Section A.2 = 0.80 (from RACM).

CEc = estimated control efficiency provided by covered conveyors and telescoping chute as outlined in Section A.2 of this permit = 0.70 (from RACM).

2. **Emission Limitation:**

Particulate emissions 10 microns and less in diameter (PM10) shall not exceed 7.9 pounds per hour.

Applicable Compliance Method:

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

3. **Emission Limitation:**

Particulate emissions (PE) shall not exceed 3.6 tons per year.

Applicable Compliance Method:

The worst case yearly PE result from the maximum allowable annual throughput of coal and shall be calculated by the following method:

$$E = (\text{maximum annual throughput, in tons per year}) \times (F1 + F2) \times (1-CEw) \times (1-CEc) / 2,000 \text{ lbs per ton.}$$

where:

E = PE rate (tpy).

max. amount of coal throughput = 200,000 tons of coal/year.

F1 = emission factor for loading coal, 0.2 lb of PE/ton of coal (from RACM, Table 2.19-2).

F2 = emission factor for conveying coal, 0.4 lb of PE/ton of coal (from RACM, Table 2.19-2).

CEw = estimated control efficiency for water suppressant = 0.80.

CEc = estimated control efficiency for covered conveyors and telescoping chute = 0.70.

4. **Emission Limitation:**

Annual emissions shall not exceed 1.3 tons per year of PM10.

Applicable Compliance Method:

The worst case yearly PM10 emissions shall be calculated by multiplying the total yearly combined PE by the decimal fraction of particulate emissions that is less than or equal to 10 microns in diameter, or 0.366.

5. **Emissions Limitation:**

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

6. **Production Limitation:**

The maximum annual production rate for this emissions unit shall not exceed 200,000 tons per year, based upon a rolling, 12-month summation of the production rates.

Applicable Compliance Method:

Compliance with the above limitation shall be determined using the records maintained pursuant to Section C.3 of this permit.

F. Miscellaneous Requirements

1. None