Facility ID: 0684000215 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.

Facility ID: 0684000215 Emissions Unit ID: F001 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Coal Storage Piles.	OAC rule 3745-31-05(A)(3) PTI # 06-07027 issued September 11, 2003	Particulate emissions (PE) shall not exceed 19.9 tons/yr. PM10 emissions shall not exceed 8.2 tons/yr.
load-in and load-out of storage piles (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions except for 5 minutes during any 60-minute period of time. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b, A.2.c and A.2.g)
	OAC rule 3745-17-07(B) OAC rule 3745-17-08 (B)	The emission limitation and control measures specified by these rules are less stringent than the emission limitation and control measures established pursuant to OAC rule 3745-31-05(A)(3).
operation of vehicles on top of coal storage piles, excluding emissions from the combustion of fuels in such vehicles (i.e., pile working) (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.d, A.2.f and A.2.g) The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B).
	OAC rule 3745-17-07(B)	Visible particulate emissions shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08 (B)	The control measures specified by this rule are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3).
wind erosion from storage piles (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions except for 5 minutes during any 60-minute period of time. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.e through A.2.g)
	OAC rule 3745-17-07(B) OAC rule 3745-17-08 (B)	The emission limitation and control measures specified by these rules are less stringent than the emission limitation and control measures established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

   (a) The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05(A)(3), OAC rule 3745-17-07(B), and OAC rule 3745-17-08 (B) are listed below:

   High BTU Coal Storage Pile
   Low BTU Coal Storage Pile

Emergency Coal Storage Pile

The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles 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 use discharge chutes having cover plates with water/dust suppressant spray bars, and underground vibratory feeders, for load-in and load-out operations respectively, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.

The permittee shall employ best available control measures on all pile working operations associated with the storage piles 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 apply water and/or other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles 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 apply water and/or other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-mentioned control measure(s) shall be employed for each pile working operation and wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

Implementation of the above-mentioned control measure(s) 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.

B. **Operational Restrictions**

1. None

C. **Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

   storage pile identification minimum load-in inspection frequency
   High BTU Coal Storage Pile Daily
   Low BTU Coal Storage Pile Daily
   Emergency Coal Storage Pile Daily

2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

   storage pile identification minimum load-out inspection frequency
   High BTU Coal Storage Pile Daily
   Low BTU Coal Storage Pile Daily
   Emergency Coal Storage Pile Daily

3. Except as otherwise provided in this section, the permittee shall perform inspections of each pile working operation associated with each storage pile in accordance with the following frequencies:
   storage pile identification minimum pile working inspection frequency
   High BTU Coal Storage Pile Daily
   Low BTU Coal Storage Pile Daily
   Emergency Coal Storage Pile Daily

4. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

   storage pile identification minimum wind erosion inspection frequency
   High BTU Coal Storage Pile Daily
   Low BTU Coal Storage Pile Daily
   Emergency Coal Storage Pile Daily

5. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

6. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, pile working operations, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

7. The permittee may, upon receipt of written approval from the Ohio EPA Southeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

8. The permittee shall maintain records of the following information:

a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. The dates the control measures were implemented; and

d. On a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 8.d. shall be kept for (i) the load-in operations (ii) the load-out operations, (iii) the pile working operations, and (iv) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. **Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:

a. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

2. 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. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation:
There shall be no visible particulate emissions from load-in and load-out operations except for five minutes in any 60-minute period of time.

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
Emission Limitation:
There shall be no visible particulate emissions from wind erosion except for five minutes in any 60-minute period of time.

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
Emission Limitation:
Visible particulate emissions associated with pile working operations shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
Emission Limitation:
PE shall not exceed 19.9 tons/yr.

Applicable Compliance Method:
Compliance with the tons/yr emission limitation shall be demonstrated by the following one time calculation based on the emission factor calculations in AP-42 sections 13.2.4, January, 1995 (load-in and load-out), 13.2.2.2, September, 1998 (pile working), and USEPA document 'Control of Open Fugitive Dust Sources', September, 1988 (wind erosion).

Load-in and Load-out:

E = k (0.0032)[(U/5)1.3/(M/2)1.4]

E = emission factor expressed in pounds (lbs) / ton
k = particle size multiplier (dimension less) = 0.74
U = mean wind speed expressed in miles per hour (MPH) = 9.1
M = material moisture content (%) = 6

E = 0.0011079 lb/ton
Maximum annual throughput = 3,504,000 tons/yr

Annual load-in emissions = 0.0011079 lb PE/ton x 3,504,000 tons/yr x 1 ton/2000 lbs = 1.94 tons/yr

Annual load-out emissions = 0.0011079 lb PE/ton x 3,504,000 tons/yr x 1 ton/2000 lbs = 1.94 tons PE/yr

Load-in and load-out for emergency storage plie:
(Truck load-in and load-out)

EF=[{k(s/12)a(W/3)b}/(M/0.2)c][(365-p)/365)]

EF = emission factor expressed in pounds (lbs) / vehicle mile traveled (VMT)
k = empirical constant = 10 for total suspended particulate
a = empirical constant = 0.8 for total suspended particulate
b = empirical constant = 0.5 for total suspended particulate
c = empirical constant = 0.4 for total suspended particulate
s = surface material silt content (%) = 4
W = mean vehicle weight (tons) = 80
p = number of days with at least 0.1 inch precipitation per year = 145
M = surface material moisture content under dry conditions = 6

EF = 3.32 lbs/VMT
Annual VMT = 250,000 tons/turnover x 1 turnover/year x 18 tons/one-way trip x factor of 2* x 575 feet/trip x 1 mile/5,280 feet = 3,250 VMT
*(A turnover includes both creating the emergency pile and removing the coal from it, thus a factor of 2 is used to adjust the one-way trips for load-in and load-out)
Annual Emergency Pile Load-in and Load-out Emissions = 3.32 lbs PE/VMT x 3,250 VMT x 1 ton/2000 lbs = 5.01 tons PE/yr

Pile Working:

EF=[{k(s/12)a(W/3)b}/(M/0.2)c][(365-p)/365)]

EF = emission factor expressed in pounds (lbs) / vehicle mile traveled (VMT)
k = empirical constant = 10 for total suspended particulate
a = empirical constant = 0.8 for total suspended particulate
b = empirical constant = 0.5 for total suspended particulate
c = empirical constant = 0.4 for total suspended particulate
s = surface material silt content (%) = 4
W = mean vehicle weight (tons) = 35
p = number of days with at least 0.1 inch precipitation per year = 145
M = surface material moisture content under dry conditions = 6

EF = 2.19 lbs/VMT
Annual VMT = 1,095

Annual Pile Working Emissions = 2.19 lbs PE/VMT x 1,095 VMT x 1 ton/2000 lbs = 1.20 tons PE/yr

Wind Erosion:

E = 1.7 (s/1.5) ({365-p}/235) (f/15)

E = Total Suspended Particulate Emission Factor (lb/day/acre)
s = silt content (%) = 4
p = number of days with at least 0.01 inch precipitation per year = 145
f = % of time wind speed exceeds 12 mph = 30

E = 8.49 lbs/day/acre
Total Area of Piles = 6.284 acres

Annual Wind Erosion Emissions = 9.73 tons/yr

Total Annual Storage Pile PE Emissions = Load-in + Load-out + Emergency Pile Load-in/out + Pile Working + Wind Erosion = 1.94 + 1.94 + 5.01 + 1.20 + 9.73 = 19.82 tons PE/yr
Emission Limitation:
PM10 emissions shall not exceed 8.2 tons/yr.

Applicable Compliance Method:
Compliance with the tons/yr emission limitation shall be demonstrated by the following one time calculation based on the emission factor calculations in AP-42 sections 13.2.4, January, 1995 (load-in and load-out), 13.2.2.2, September, 1998 (pile working), and USEPA document 'Control of Open Fugitive Dust Sources', September, 1988 (wind erosion).

Load-in and Load-out:

E = k (0.0032)[(U/5)1.3/(M/2)1.4]

E = emission factor expressed in pounds (lbs) / ton
k = particle size multiplier (dimension less) = 0.35
U = mean wind speed expressed in miles per hour (MPH) = 9.1
M = material moisture content (%) = 6

E = 0.000524 lb/ton
Maximum annual throughput = 3,504,000 tons/yr

Annual load-in emissions = 0.000524 lb PM10/ton x 3,504,000 tons/yr x 1 ton/2000 lbs = 0.92 ton/yr
Annual load-out emissions = 0.000524 lb PM10/ton x 3,504,000 tons/yr x 1 ton/2000 lbs = 0.92 ton PM10/yr

Load-in and load-out for emergency storage plie:
(Truck load-in and load-out)

EF=[{k(s/12)a(W/3)b}/(M/0.2)c][(365-p)/365)]

EF = emission factor expressed in pounds (lbs) / vehicle mile traveled (VMT)

k = empirical constant = 2.6 for PM10
a = empirical constant = 0.8 for PM10
b = empirical constant = 0.4 for PM10
c = empirical constant = 0.3 for PM10
s = surface material silt content (%) = 4
W = mean vehicle weight (tons) = 80
p = number of days with at least 0.1 inch precipitation per year = 145
M = surface material moisture content under dry conditions = 6

EF = 0.873 lbs/VMT
Annual VMT = 250,000 tons/turnover x 1 turnover/year x 18 tons/one-way trip x factor of 2* x 575 feet/trip x 1 mile/5,280 feet = 3,250 VMT
*(A turnover includes both creating the emergency pile and removing the coal from it, thus a factor of 2 is used to adjust the one-way trips for load-in and load-out)
Annual VMT = 250,000 tons/turnover x 1 turnover/year x 18 tons/one-way trip x factor of 2* x 575 feet/trip x 1 mile/5,280 feet = 3,250 VMT
*(A turnover includes both creating the emergency pile and removing the coal from it, thus a factor of 2 is used to adjust the one-way trips for load-in and load-out)
Annual Emergency Pile Load-in and Load-out Emissions = 0.873 lbs PE/VMT x 3,250 VMT x 1 ton/2000 lbs = 1.32 tons PM10/yr
Pile Working:

EF=[{k(s/12)a(W/3)b}/(M/0.2)c][(365-p)/365)]

EF = emission factor expressed in pounds (lbs) / vehicle mile traveled (VMT)
k = empirical constant = 2.6 for PM10
a = empirical constant = 0.8 for PM10
b = empirical constant = 0.4 for PM10
c = empirical constant = 0.3 for PM10
s = surface material silt content (%) = 4
W = mean vehicle weight (tons) = 35
p = number of days with at least 0.1 inch precipitation per year = 145
M = surface material moisture content under dry conditions = 6

EF = 0.63 lb/VMT
Annual VMT = 1,095

Annual Pile Working Emissions = 0.63 lb PM10/VMT x 1,095 VMT x 1 ton/2000 lbs = 0.34 ton PM10/yr
Wind Erosion:

E = 1.7 (s/1.5) ({365-p}/235) (f/15)

E = Total Suspended Particulate Emission Factor (lb/day/acre)
s = silt content (%) = 4
p = number of days with at least 0.01 inch precipitation per year = 145
f = % of time wind speed exceeds 12 mph = 30

E = 8.49 lbs/day/acre
Total Area of Piles = 6.284 acres

Annual Wind Erosion Emissions = 9.73 tons/yr total particulate

PM10 Emissions = Total PE/2.1 (Based on AP-42 particle size coefficients of 0.74 for total suspended particulate and 0.35 for PM10) = 4.64 tons/yr

Total Annual Storage Pile PM10 Emissions = Load-in + Load-out + Emergency Pile Load-in/out + Pile Working + Wind Erosion = 0.92 + 0.92 + 1.32 + 0.34 + 4.64 = 8.14 tons PM10/yr

F. **Miscellaneous Requirements**

1. None