



State of Ohio Environmental Protection Agency

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RE: DRAFT PERMIT TO INSTALL

LUCAS COUNTY

Application No: 04-01399

Fac ID: 0448020068

DATE: 5/24/2005

CSX Transportation, Presque Isle Docks
Richard Nath
500 Water Street, J-275
Jacksonville, FL 32202-4423

CERTIFIED MAIL

| | |
|--|------------------------------|
| | TOXIC REVIEW |
| | PSD |
| | SYNTHETIC MINOR |
| | CEMS |
| | MACT |
| | NSPS |
| | NESHAPS |
| | NETTING |
| | MAJOR NON-ATTAINMENT |
| | MODELING SUBMITTED |
| | GASOLINE DISPENSING FACILITY |

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$3100** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 04-01399

Application Number: 04-01399
Facility ID: 0448020068
Permit Fee: **To be entered upon final issuance**
Name of Facility: CSX Transportation, Presque Isle Docks
Person to Contact: Richard Nath
Address: 500 Water Street, J-275
Jacksonville, FL 32202-4423

Location of proposed air contaminant source(s) [emissions unit(s)]:
**600 Millard Ave
Oregon, Ohio**

Description of proposed emissions unit(s):
Coal railcar unloading, conveying, storing and loading onto ships.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| PE | 17.34 |
| PM ₁₀ | 8.81 |
| NO _x | 3.00 |
| SO ₂ | 0.02 |
| CO | 2.52 |
| VOC | 0.17 |

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|--|--------------------------------------|--|
| F003 - Coal unloading, handling and shiploading: | | |
| Rotary railcar unloading controlled by partial enclosure using adequate moisture | OAC rule 3745-31-05 | 0.05 pound of particulate emissions (PE) per hour, 0.07 ton PE per year; 0.02 pound of particulate matter less than 10 microns (PM ₁₀) per hour, 0.03 ton PM ₁₀ per year see Section A.2.a. |
| | OAC rule 3745-17-07 (B)(1) | see Section A.2.c. |
| | OAC rule 3745-17-08 (B) | see Section A.2.b. |
| Coal conveying operations: 9 transfer stations and conveyors controlled by enclosure and adequate moisture; conveyors | OAC rule 3745-31-05 | 6.58 pounds of particulate emissions (PE) per hour, 5.64 tons PE per year; 3.28 pounds of particulate matter less than 10 microns (PM ₁₀) per hour, 2.80 tons PM ₁₀ per year see Section A.2.a. |
| | OAC rule 3745-17-07 (B)(1) | see Section A.2.c. |
| | OAC rule 3745-17-08 (B) | see Section A.2.b. |

permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.

- iii. 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.

2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.d The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

| <u>Company ID</u> | <u>Equipment Description</u> |
|-----------------------|--|
| Conv C1 | railcar dumper to TS1 |
| Conv C2 | TS1 to TS7 stacker conveyor |
| Conv RB1 | TS8 to TS3 east side reclaimer conveyor |
| Conv CB1 | Butted end to TS6 west side reclaimer conveyor |
| TS1 | Transfer Station #1 |
| TS2 | Transfer Station #2 |
| TS3 | Transfer Station #3 |
| TS4 | Transfer Station #4 |
| TS5 | Transfer Station #5 |
| TS6 | Transfer Station #6 |
| TS7 | Transfer Station #7 |
| TS8 | Transfer Station #8 |
| TS9 | Transfer Station #9 |
| Conv C3 | TS1 to TS2 |
| Conv C4A | TS2 to TS5 |
| Conv SC1 | TS2 to TS4 |
| Conv SC2 | TS4 to coal silo 1 |
| Conv SC3 | Silo 1 to Silo 2 |
| Conv SC4 | Silo 1 to TS 5 |
| Conv #2 of #4 machine | TS5 to shiploader |
| Conv RB2 | TS3 to TS 2 |
| Conv CB2 | TS6 to TS7 |
| Conv CB3 | TS7 to TS9 |
| Conv CB4 | TS9 to proposed coke plant battery |
| Conv CBR | TS6 to TS8 |

B. Operational Restrictions

1. The permittee shall use adequate moisture whenever the rotary railcar dumper and transfer stations are in operation.
2. The coal throughput rate shall be limited to 18,000,000 tons per year, based upon a rolling, 12-month summation of the coal throughput for the rotary railcar dumper in tons.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the coal throughput specified in the following table:

| <u>Month</u> | <u>Maximum Allowable Coal Throughput, tons</u> |
|--------------|--|
| 1 | 1,500,000 |
| 1-2 | 3,000,000 |
| 1-3 | 4,500,000 |
| 1-4 | 6,000,000 |
| 1-5 | 7,500,000 |
| 1-6 | 9,000,000 |
| 1-7 | 10,500,000 |
| 1-8 | 12,000,000 |
| 1-9 | 13,500,000 |
| 1-10 | 15,000,000 |
| 1-11 | 16,500,000 |
| 1-12 | 18,000,000 |

After the first 12 calendar months of operation, compliance with the annual coal throughput limitation shall be based upon a rolling, 12-month summation of the coal throughput in tons.

3. The coal throughput rate for the sequential transfer stations TS7 and TS9 shall be limited to 4,000,000 tons per year, based upon a rolling, 12-month summation of the coal throughput through transfer station TS9, in tons.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the coal throughput specified in the following table:

| <u>Month</u> | <u>Maximum Allowable Coal Throughput, tons</u> |
|--------------|--|
| 1 | 350,000 |
| 1-2 | 700,000 |
| 1-3 | 1,050,000 |
| 1-4 | 1,400,000 |
| 1-5 | 1,750,000 |
| 1-6 | 2,100,000 |
| 1-7 | 2,450,000 |
| 1-8 | 2,800,000 |

| | |
|------|-----------|
| 1-9 | 3,150,000 |
| 1-10 | 3,500,000 |
| 1-11 | 3,850,000 |
| 1-12 | 4,000,000 |

After the first 12 calendar months of operation, compliance with the annual coal throughput limitation through these two transfer stations shall be based upon a rolling, 12-month summation of the coal throughput in tons.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the listed equipment comprising this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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.
3. The permittee shall maintain monthly records of the following information:
 - a. the coal throughput through the rotary railcar dumper for each month, in tons;
 - b. the coal throughput through transfer station TS9 for each month, in tons;
 - c. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the coal throughput for the rotary railcar dumper; and,
 - d. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the coal throughput for the transfer station.

D. Reporting Requirements

1. The permittee shall submit written quarterly deviation reports to the Toledo Division of Environmental Services which identify the following:
 - a. identify all days during which any visible fugitive particulate emissions were observed from the equipment comprising this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during the quarter.

2. The permittee shall submit to the Toledo Division of Environmental Services quarterly deviation (excursion) reports that identify all exceedances of the rolling, monthly coal throughput limitations in section B. and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative coal throughput. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during the quarter.
3. 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 limitations for the rotary railcar dumper in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

0.05 pound per hour of particulate matter (PE).

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal unloaded per hour (6000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton) times (1- % control efficiency). The control efficiency was supplied by the permittee for partial enclosure using adequate moisture, 85% for:

Railcar rotary dumper: $6000 * 5.16E^{-05} * (1 - 0.85) = 0.05$ lb/hr

- b. Emission Limitation:

0.07 ton of PE per year.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal unloaded per rolling 12-month period (18,000,000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton for each operation) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiency was supplied by the permittee for partial enclosure using adequate moisture, 85% for:

$$\text{Railcar rotary dumper: } 18,000,000 * 5.16E^{-05} * (1-0.85) / 2000 = 0.07 \text{ TPY}$$

c. Emission Limitation:

0.02 pound per hour of particulate matter less than 10 micron (PM_{10}),

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal unloaded per hour (6000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($2.44E^{-05}$ pound/ton) times (1- % control efficiency). The control efficiency was supplied by the permittee for partial enclosure using adequate moisture, 85% for:

$$\text{Railcar rotary dumper: } 6000 * 2.44E^{-05} * (1-0.85) = 0.02 \text{ lb/hr}$$

d. Emission Limitation:

0.03 ton of PM_{10} as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal unloaded per rolling 12-month period (18,000,000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($2.44E^{-05}$ pound/ton) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiency was supplied by the permittee for partial enclosure using adequate moisture, 85% for:

$$\text{Railcar rotary dumper: } 18,000,000 * 2.44E^{-05} * (1-0.85) / 2000 = 0.03 \text{ TPY}$$

2. Compliance with the emission limitations for the coal conveying operations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

6.58 pounds per hour of particulate emissions (PE).

Applicable Compliance Method:

The emission rate was established by calculating and adding the emissions from the transfer stations and conveyors. The emission rate was determined as follows:

- i. Compliance shall be demonstrated for the transfer stations by the following calculation: multiply the maximum equipment capacity (tons of coal per hour), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton) times (1- % control efficiency). The control efficiencies were supplied by the permittee as follows:

transfer stations (TS 1-9) adequate enclosure and moisture, 85%

TS 1 - 5: $6000 * 5.16E^{-05} * (1-.85) * 5 = 0.23 \text{ lb/hr}$

TS 6 - 9: $3000 * 5.16E^{-05} * (1-.85) * 4 = 0.10 \text{ lb/hr}$

- ii. Compliance shall be demonstrated for the uncovered conveyors by using the equations from AP-42 5th Edition, Section 13.2.5, dated 1/95, titled "Industrial Wind Erosion". The observed "fastest mile" over a 30 year period at Toledo Express Airport (available from Gale Publishers, 1985 and on the internet) were used in the calculations for friction velocities (u^*). The area exposed to wind erosion was calculated as 32,200 ft² for the stacker conveyor, 30,800 and 22,000 ft² for the two reclaimer conveyors. The control efficiencies were supplied by the permittee as follows:

stacker conveyor C2 wind guard, 50%

reclaimer conveyors (CB1 & RB1) wind guard, 50%

The calculated emissions using the above information is as follows:

stacker conveyor C2 2.36 lb/hr

reclaimer conveyors (CB1 & RB1) 3.89 lb/hr

- iii. Emissions are assumed to be controlled 100% through the use of full enclosure on the following conveyors:

Conv C3 0 lb/hr

Conv C4A 0 lb/hr

Conv SC1 0 lb/hr

Conv SC2 0 lb/hr

Conv SC3 0 lb/hr

Conv SC4 0 lb/hr

Conv #2 of #4 machine 0 lb/hr

Conv RB2 0 lb/hr

Conv CB2 0 lb/hr

Conv CB3 0 lb/hr

| | |
|----------|---------|
| Conv CB4 | 0 lh/hr |
| Conv CBR | 0 lh/hr |

b. Emission Limitation:

5.64 tons of PE per year.

Applicable Compliance Method:

The emission limitation was established by calculating and adding the emissions from the transfer stations and conveyors. The emission limitation was determined as follows:

- i. Compliance shall be demonstrated for the transfer stations by the following calculation: multiply the maximum tons of coal unloaded per rolling 12-month period, times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiency was supplied by the permittee as follows:

transfer stations (TS 1-9) adequate enclosure and moisture, 85%
 TS 1 - 5, 6 & 8: $18,000,000 * 5.16E^{-05} * (1-.85) * 7 / 2000 = 0.49$ TPY
 TS 7 & 9: $4,000,000 * 5.16E^{-05} * (1-.85) * 2 / 2000 = 0.03$ TPY

- ii. Compliance shall be demonstrated for the uncovered conveyors by using the equations from AP-42 5th Edition, Section 13.2.5, dated 1/95, titled "Industrial Wind Erosion". The observed "fastest mile" over a 45 year period at Toledo Express Airport (available from National Oceanic and Atmospheric Administration (NOAA on the internet) were used in the calculations for friction velocities (u^*). The area exposed to wind erosion was calculated as 32,200 ft² for the stacker conveyor, 30,800 and 22,000 ft² for the two reclaimer conveyors. The control efficiencies were supplied by the permittee as follows:

| | |
|--------------------------------|-----------------|
| stacker conveyor C2 | wind guard, 50% |
| reclaimer conveyors CB1 & RB1) | wind guard, 50% |

The calculated emissions using the above information is as follows:

| | |
|--------------------------------|----------|
| stacker conveyor C2 | 1.94 TPY |
| reclaimer conveyors CB1 & RB1) | 3.18 TPY |

- iii. Emissions are assumed to be controlled 100% through the use of full enclosure on the following conveyors:

| | |
|----------|-------|
| Conv C3 | 0 TPY |
| Conv C4A | 0 TPY |
| Conv SC1 | 0 TPY |

| | |
|-----------------------|-------|
| Conv SC2 | 0 TPY |
| Conv SC3 | 0 TPY |
| Conv SC4 | 0 TPY |
| Conv #2 of #4 machine | 0 TPY |
| Conv RB2 | 0 TPY |
| Conv CB2 | 0 TPY |
| Conv CB3 | 0 TPY |
| Conv CB4 | 0 TPY |
| Conv CBR | 0 TPY |

c. Emission Limitation:

3.28 pounds per hour of particulate matter less than 10 micron (PM₁₀),

Applicable Compliance Method:

- i. Compliance shall be demonstrated for the transfer stations by the following calculation: multiply the maximum equipment capacity (tons of coal per hour), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 (2.44E⁻⁰⁵ pound/ton) times (1- % control efficiency). The control efficiencies were supplied by the permittee as follows: transfer stations (TS 1-9) full enclosure and adequate moisture, 85%

TS 1 - 5: $6000 * 2.44E^{-05} * (1-.85) * 5 = 0.11 \text{ lb/hr}$
 TS 6 - 9: $3000 * 2.44E^{-05} * (1-.85) * 4 = 0.04 \text{ lb/hr}$

- ii. Compliance shall be demonstrated for the uncovered conveyors by using the equations from AP-42 5th Edition, Section 13.2.5, dated 1/95, titled "Industrial Wind Erosion". The observed "fastest mile" over a 30 year period at Toledo Express Airport (available from Gale Publishers, 1985 and on the internet) were used in the calculations for friction velocities (u*). The area exposed to wind erosion was calculated as 32,200 ft² for the stacker conveyor, 30,800 and 22,000 ft² for the two reclaimer conveyors. The control efficiencies were supplied by the permittee as follows:

stacker conveyor C2 wind guard, 50%
 reclaimer conveyors (CB1 & RB1) wind guard, 50%

The calculated emissions using the above information is as follows:

stacker conveyor C2 1.18 lb/hr
 reclaimer conveyors (CB1 & RB1) 1.95 lb/hr

- iii. Emissions are assumed to be controlled 100% through the use of full enclosure on the following conveyors:

| | |
|-----------------------|---------|
| Conv C3 | 0 lh/hr |
| Conv C4A | 0 lh/hr |
| Conv SC1 | 0 lh/hr |
| Conv SC2 | 0 lh/hr |
| Conv SC3 | 0 lh/hr |
| Conv SC4 | 0 lh/hr |
| Conv #2 of #4 machine | 0 lh/hr |
| Conv RB2 | 0 lh/hr |
| Conv CB2 | 0 lh/hr |
| Conv CB3 | 0 lh/hr |
| Conv CB4 | 0 lh/hr |
| Conv CBR | 0 lh/hr |

d. Emission Limitation:

2.80 tons of PM₁₀ per year

Applicable Compliance Method:

i. Compliance shall be demonstrated for the transfer stations by the following calculation: multiply the maximum tons of coal unloaded per rolling 12-month period, times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($2.44E^{-05}$ pound/ton) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiencies were supplied by the permittee as follows:

transfer stations (TS 1-9) full enclosure and adequate moisture, 85%
 TS 1 - 5, 6 & 8: $18,000,000 * 2.44E^{-05} * (1-.85) * 7 / 2000 = 0.16$ TPY
 TS 7 & 9: $4,000,000 * 2.44E^{-05} * (1-.85) * 2 / 2000 = 0.08$ TPY

ii. Compliance shall be demonstrated for the uncovered conveyors by using the equations from AP-42 5th Edition, Section 13.2.5, dated 1/95, titled "Industrial Wind Erosion". The observed "fastest mile" over a 30 year period at Toledo Express Airport (available from Gale Publishers, 1985 and on the internet) were used in the calculations for friction velocities (u^*). The area exposed to wind erosion was calculated as 32,200 ft² for the stacker conveyor, 30,800 and 22,000 ft² for the two reclaimer conveyors. The control efficiencies were supplied by the permittee as follows:

stacker conveyor C2 wind guard, 50%
 reclaimer conveyors (CB1 & RB10) wind guard, 50%

The calculated emissions using the above information is as follows:

stacker conveyor C2 0.97 TPY
 reclaimer conveyors (CB1 & RB10) 1.59 TPY

- iii. Emissions are assumed to be controlled 100% through the use of full enclosure on the following conveyors:

| | |
|-----------------------|-------|
| Conv C3 | 0 TPY |
| Conv C4A | 0 TPY |
| Conv SC1 | 0 TPY |
| Conv SC2 | 0 TPY |
| Conv SC3 | 0 TPY |
| Conv SC4 | 0 TPY |
| Conv #2 of #4 machine | 0 TPY |
| Conv RB2 | 0 TPY |
| Conv CB2 | 0 TPY |
| Conv CB3 | 0 TPY |
| Conv CB4 | 0 TPY |
| Conv CBR | 0 TPY |

- 3. Compliance with the emission limitations for the shiploader in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

0.31 pound per hour of particulate emissions (PE).

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal loaded per hour (6000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton).

$$\text{Shiploader: } 6000 * 5.16E^{-05} = 0.31 \text{ lb/hr}$$

- b. Emission Limitation:

0.46 ton of PE per year.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal loaded per rolling 12-month period (18,000,000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($5.16E^{-05}$ pound/ton) and divide by 2,000 pounds per ton.

$$\text{Shiploader: } 18,000,000 * 5.16E^{-05} / 2000 = 0.46 \text{ TPY}$$

- c. Emission Limitation:

0.15 pound per hour of particulate matter less than 10 micron (PM_{10}),

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal loaded per hour (6000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($2.44E^{-05}$ pound/ton).

Shiploader: $6000 * 2.44E^{-05} = 0.15$ lb/hr

d. Emission Limitation:

0.22 ton of PM_{10} as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation: multiply the maximum tons of coal loaded per rolling 12-month period (18,000,000), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 ($2.44E^{-05}$ pound/ton) and divide by 2,000 pounds per ton.

Shiploader: $18,000,000 * 2.44E^{-05} / 2000 = 0.22$ TPY

F. Miscellaneous Requirements

1. All requirements of Sections A. through E. of this permit to install are federally enforceable.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|--|--------------------------------------|--|
| F004 - Coal storage piles using a stacker for load-in and 2 bucket wheel reclaimers for load-out | OAC rule 3745-31-05(A)(3) | 11.09 tons particulate emissions (PE) per year; 5.52 tons of particulate matter less than 10 microns (PM ₁₀) per year see Sections 2.a. and 2.b. |
| | OAC rule 3745-17-07 (B)(6) | see Section A.2.h. |
| | OAC rule 3745-17-08 (B), (B)(6) | see Section A.2.h. |
| load-in and load-out of storage piles | OAC rule 3745-31-05(A)(3) | no visible emissions except for one minute in any hour best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c., A.2.d. and A.2.g.) |
| | OAC rule 3745-17-07 (B)(6) | see Section A.2.h. |
| | OAC rule 3745-17-08 (B), (B)(6) | see Section A.2.h. |
| wind erosion from storage piles | OAC rule 3745-31-05(A)(3) | no visible emissions except for one minute in any hour 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)(6)

see Section A.2.h.

OAC rule 3745-17-08 (B), (B)(6)

see Section A.2.h.

2. Additional Terms and Conditions

- 2.a** The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:
- All coal storage piles
- 2.b** The annual emission limitations were established for PTI purposes to reflect the potential to emit for the storage piles. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.c** 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 using partial enclosure on the reclaimers and a telescoping chute to minimize drop height for the stacker to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d** The above-mentioned control measures 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 measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.
- 2.e** 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 using water spray to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.f** The above-mentioned control measure(s) shall be employed for 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.

- 2.g 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.
- 2.h The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

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

| <u>storage pile identification</u> | <u>minimum load-in inspection frequency</u> |
|--------------------------------------|---|
| Load-in: all coal storage piles | once during each day of operation |
| Load-out: all coal storage piles | once during each day of operation |
| Wind erosion: all coal storage piles | once during each day of operation |

- 2. 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 events have ended, except if the next required inspection is within one week.
- 3. 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, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- 4. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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.
- 5. 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 5.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) 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 limitations for the in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

11.09 tons per year of fugitive particulate emissions (PE).

Applicable Compliance Method:

The emission limitation was established by calculating the emissions from the load-in and load-out operations, and from wind erosion from the storage piles and summing the emissions. Load-in and loadout operation emissions are based on a maximum load-in and load-out rate of 18,000,000 tons per year of coal. Wind erosion emissions are based on a maximum storage pile surface area of 35.3 acres:

The emission limitation was determined as follows:

- i. Load-in (stacker): emissions associated with load-in operations were established by multiplying the maximum load-in rate of 18,000,000 tons per year of coal by the appropriate emission factor from AP-42 section 13.2.4.3 (1/95) [$9.63E^{-4}$ lb PE/ton product], applying a 75% control efficiency for use of a telescoping chute with minimum drop height and dividing by 2000 lbs/ton. (2.17 tons fugitive PE/yr)
- ii. Load-out (east side and west side reclaimers): emissions associated with load-out operations were established by multiplying the maximum load-out rate of 18,000,000 tons per year of coal by the appropriate emission factor from AP-42 section 13.2.4.3 (1/95) [$9.63E^{-4}$ lb PE/ton product], applying a 80% control efficiency for partial enclosure and dividing by 2000 lbs/ton. (1.73 tons fugitive PE/yr)
- iii. (a) Wind erosion (storage piles): emissions were established by determining the maximum uncontrolled tons of PE using the equations in AP-42 section 13.2.5 (1/95) "Industrial Wind Erosion" [52.06 tons of PE per year], applying a 90% control efficiency for adequate moisture and dividing by 2000 lbs/ton. (5.21 tons fugitive PE/yr).
- (b) Wind erosion (grading): emissions were established by using the equation in AP-42 section 11.9, table 1 (10/98) "Western Surface Coal Mining", assuming 2mph vehicle speed, 8760 hours of operation and dividing by 2000 lbs/ton (1.98 tons fugitive PE/yr).

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitation will be assumed.

b. Emission Limitation:

5.52 tons per year of fugitive particulate matter less than 10 microns (PM_{10}).

Applicable Compliance Method:

The emission limitation was established by combining the emissions from the load-in and load-out operations and from wind erosion from the storage piles as listed in the permittee's application and applying a 90% control efficiency for adequate moisture and minimum drop height. Load-in and loadout operation emissions are based on a maximum load-in and load-out rate of 18, 000,000 tons per year of coal. Wind erosion emissions are based on a maximum storage pile surface area of 35.3 acres as listed in the permit application:

The emission rate was determined as follows:

- i. Load-in (stacker): emissions associated with load-in operations were established by multiplying the maximum load-in rate of 18,000,000 tons per year of coal by the appropriate emission factor from AP-42 section 13.2.4.3 (1/95) [$4.56E^{-4}$ lb PM_{10} /ton product], applying a 75% control efficiency for use of a telescoping chute with minimum drop height and dividing by 2000 lbs/ton. (1.03 tons fugitive PM_{10} /yr)
- ii. Load-out (east side and west side reclaimers): emissions associated with load-out operations were established by multiplying the maximum load-out rate of 18,000,000 tons per year of coal by the appropriate emission factor from AP-42 section 13.2.4.3 (1/95) [$4.56E^{-4}$ lb PM_{10} /ton product], applying a 80% control efficiency for partial enclosure and dividing by 2000 lbs/ton. (0.82 ton fugitive PM_{10} /yr)
- iii. (a) Wind erosion (storage piles): emissions were established by determining the maximum uncontrolled tons of PE using the equations in AP-42 section 13.2.5 (1/95) "Industrial Wind Erosion" [26.03 tons of PM_{10} per year], applying a 90% control efficiency for adequate moisture and dividing by 2000 lbs/ton. (2.60 tons fugitive PM_{10} /yr).
(b) Wind erosion (grading): emissions were established by using the equation in AP-42 section 11.9, table 1 (10/98) "Western Surface Coal Mining", assuming 2mph vehicle speed, 8760 hours of operation and dividing by 2000 lbs/ton (1.07 tons fugitive PM_{10} /yr).

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PE limitation will be assumed.

c. Emission Limitation:

No visible particulate emissions except for a period of time not to exceed one minute during any 60-minute observation period from load-in and load-out of the storage piles or from wind erosion.

Applicable Compliance Method:

Compliance with the visible emission limitations for the storage piles identified above 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, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

1. All requirements of Sections A. through E. of this permit to install are federally enforceable.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| F005 - (2) 15,000 ton coal silos with bin vent filter system and (2) silo feeders with full enclosure | OAC rule 3745-31-05(A)(3) | 0.012 pound of particulate emissions (PE) per hour, 0.018 ton of PE per year; 0.006 pound of particulate matter less than 10 micron (PM ₁₀) per hour, 0.008 ton of PM ₁₀ |
| | | see Sections A.2.a., 2.b. and 2.c. |
| | OAC rule 3745-17-07(B)(1) | see Section A.2.d. |
| | OAC rule 3745-17-08(B)(3) | see Section A.2.d. |
| | OAC rule 3745-17-11(A)(2) | see Section A.2.d. |

2. Additional Terms and Conditions

- 2.a The visible emissions of fugitive dust from all equipment comprising this emissions unit shall not exceed 10% opacity as a 3-minute average.
- 2.b Visible particulate emissions shall not exceed 5 percent opacity, as a 6-minute average, from any dust collector (e.g., baghouse) stack serving this emissions unit.
- 2.c The permittee shall employ best available control measures for all handling operations for the purpose of ensuring compliance with the emissions limitations above. These control measures shall include, but not be limited to the enclosure of the emissions sources and the addition of dust control systems.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. Operational Restrictions

1. The permittee shall operate the bin vent filtering system whenever the associated coal handling operation is in use.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records that document any time periods when the bin vent filtering system was not in service when the associated coal handling operation was in use.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions and/or stack particulate emissions from the equipment comprising this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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.

D. Reporting Requirements

1. The permittee shall submit written quarterly reports to the Toledo Division of Environmental Services which identify all days during which the bin vent filtering system was not in service when the associated coal handling operation was in use. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.
2. The permittee shall submit quarterly written reports that:

- a. identify all days during which any visible particulate emissions were observed from this emissions unit; and
- b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

E. Testing Requirements

- 1. Compliance with the emission limitation(s) for the lime handling operation in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.012 pound of particulate emissions (PE) per hour.

Applicable Compliance Method:

Compliance shall be demonstrated for the silos and silo feeders by the following calculation: multiply the maximum equipment capacity (6,000 tons of coal per hour), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 (5.16E⁻⁰⁵ pound/ton) times (1- % control efficiency). The control efficiencies were supplied by the permittee as follows:

| | |
|---------------|---|
| silos | full enclosure and bin vent filter, 98% |
| silos feeders | full enclosure and bin vent filter, 98% |

silos: $6,000 * 5.16E^{-05} * (1-.98) = 0.006$

silos feeders: $6,000 * 5.16E^{-05} * (1-.98) = 0.006$

- b. Emission Limitation:

0.018 ton of PE per year.

Applicable Compliance Method:

Compliance shall be demonstrated for the silos and silo feeders by the following calculation: multiply the maximum tons of coal fed through the silos per year (18,000,000, limited in source F003), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 (5.16E⁻⁰⁵ pound/ton) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiencies were supplied by the permittee as follows:

| | |
|-------|---|
| silos | full enclosure and bin vent filter, 98% |
|-------|---|

silo feeders full enclosure and bin vent filter, 98%

silos: $18,000,000 * 5.16E^{-05} * (1-.98) / 2000 = 0.009$

silo feeders: $18,000,000 * 5.16E^{-05} * (1-.98) / 2000 = 0.009$

c. Emission Limitation:

0.006 pound of particulate matter less than 10 micron (PM₁₀) per hour.

Applicable Compliance Method:

Compliance shall be demonstrated for the silos and silo feeders by the following calculation: multiply the maximum equipment capacity (6,000 tons of coal per hour), times a PM₁₀ emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 (2.44E⁻⁰⁵ pound/ton) times (1- % control efficiency). The control efficiencies were supplied by the permittee as follows:

silos full enclosure and bin vent filter, 98%

silo feeders full enclosure and bin vent filter, 98%

silos: $6,000 * 2.44E^{-05} * (1-.98) = 0.003$

silo feeders: $6,000 * 2.44E^{-05} * (1-.98) = 0.003$

d. Emission Limitation:

0.008 ton of PM₁₀ as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated for the silos and silo feeders by the following calculation: multiply the maximum tons of coal fed through the silos per year (18,000,000, limited in source F003), times a particulate emissions factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95 (2.44E⁻⁰⁵ pound/ton) times (1- % control efficiency), and divide by 2,000 pounds per ton. The control efficiencies were supplied by the permittee as follows:

silos full enclosure and bin vent filter, 98%

silo feeders full enclosure and bin vent filter, 98%

silos: $18,000,000 * 2.44E^{-05} * (1-.98) / 2000 = 0.004$

silo feeders: $18,000,000 * 2.44E^{-05} * (1-.98) / 2000 = 0.004$

2. Compliance with the visible emission limitation(s) for all emissions sources comprising this emissions unit, as listed in Section A.1. of these terms and conditions, shall be determined in accordance with the following method(s):

a. Emission Limitation:

10% opacity as a 3-minute average, for fugitive dust

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

5 percent opacity, as a 6-minute average, from the bin vent filter

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

1. All requirements of Sections A. through E. of this permit to install are federally enforceable.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|---|
| F006 - Thaw Shed with multiple 1-2 mmBtu/hr radiant tube burners fired with natural gas (total less than 30 mmBtu/hr) | OAC rule 3745-31-05(A)(3) | <p>Particulate emissions (PE) shall not exceed 0.0019 lb/mmBtu and 0.06 tons per year (TPY).</p> <p>Particulate matter less than 10 microns (PM₁₀) shall not exceed 0.0075 lb/mmBtu and 0.23 tons per year (TPY).</p> <p>Organic compound (OC) emissions shall not exceed 0.005 lb/mmBtu and 0.17 TPY.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 0.098 lb/mmBtu and 3.00 TPY.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.082 lb/mmBtu and 2.52 TPY.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.001 lb/mmBtu and 0.02 TPY.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 3-minute average</p> <p>The requirements of this rule also include compliance with the</p> |

| | |
|---|--|
| | <p>requirements of OAC rules 3745-21-07(B), 3745-21-08(B), 3745-23-06(B)</p> <p>see Section A.2.a.</p> |
| <p>OAC rule 3745-17-07(B)(1) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)</p> | <p>The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> |
| <p>OAC rule 3745-21-08(B)</p> | <p>see Section A.2.c.</p> |
| <p>OAC rule 3745-21-07(B)</p> | <p>see Section A.2.b.</p> |
| <p>OAC rule 3745-23-06(B)</p> | <p>see Section A.2.d.</p> |

2. Additional Terms and Conditions

- 2.a** The lb/mmBtu actual heat input and tons per year emission limitations, are based on the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- 2.b** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d The permittee has satisfied the “latest available control techniques and operating practices” required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the “latest available control techniques and operating practices” still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

- 1. The permittee shall burn only natural gas in this emissions unit.
- 2. The fuel usage rate shall be limited to 60 million standard cubic feet (mmscf) per year, based upon a rolling, 12-month summation of the fuel usage rate for the open burners in the thaw shed.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the fuel usage rate specified in the following table:

| <u>Month</u> | <u>Maximum Allowable Fuel Usage Rate (mmscf)</u> |
|--------------|--|
| 1 | 15 |
| 1-2 | 30 |
| 1-3 | 45 |
| 1-4 | 60 |
| 1-5 | 60 |
| 1-6 | 60 |
| 1-7 | 60 |
| 1-8 | 60 |
| 1-9 | 60 |
| 1-10 | 60 |
| 1-11 | 60 |
| 1-12 | 60 |

After the first 12 calendar months of operation, compliance with the annual fuel usage rate for the open burners will be based upon a rolling, 12-month summation of the fuel usage rate in millions of standard cubic feet.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information:
 - a. the fuel usage rate for the open burners for each month, in mmscf; and
 - b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the fuel usage rate for the open burners.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit to the Toledo Division of Environmental Services quarterly deviation (excursion) reports that identify all exceedances of the rolling, monthly fuel usage in section B. and, for the first 12 calendar months of operation, all exceedances of the maximum allowable fuel usage rate. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during the quarter.
3. 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 limitations in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

10% opacity, as a three-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).
 - b. Emission Limitations:

0.098 lb/mmBtu, 3.00 tons of NOx emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 100 lbs NO_x/mmscf emission factor into lb NO_x/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb NO_x/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

c. Emission Limitations:

0.082 lb/mmBtu, 2.52 tons of CO emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 84 lbs CO/mmscf emission factor into lb CO/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb CO/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

d. Emission Limitations:

0.005 lb/mmBtu, 0.17 ton of OC emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 5.5 lbs OC/mmscf emission factor into lb OC/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb OC/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

e. Emission Limitations:

0.001 lb/mmBtu, 0.02 ton of SO₂ emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 0.60 lbs SO₂/mmscf emission factor into lb SO₂/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb SO₂/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

f. Emission Limitations:

0.0019 lb/mmBtu, 0.06 ton of PE emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 1.9 lbs PE/mmscf emission factor into lb PE/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb PE/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

g. Emission Limitations:

0.0075 lb/mmBtu, 0.23 ton of PM₁₀ emissions per year

Applicable Compliance Methods:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 7.6 lbs PM₁₀/mmscf emission factor into lb PM₁₀/mmBtu by dividing by 1020 mmBtu/mmscf. Compliance with the annual emission limitation may be demonstrated by multiplying the lb PM₁₀/mmscf emission factor by the maximum fuel usage rate (mmscf/yr) of the emissions unit, then dividing by 2000 lbs/ton.

F. Miscellaneous Requirements

1. All requirements of Sections A. through E. of this permit to install are federally enforceable.