

2 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio 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

3 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

approval constitutes a violation of Ohio Administrative Code (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 prove to be inadequate or cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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.

4 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for 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.

5 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Muskie Trans-Loading Facility** located in **Coshocton** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
F001	Material Handling: loading and unloading	Enclose loading/unloading and transfer points. Reduced drop heights. Employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.	3745-31-05 40 CFR 60, Subpart Y	0.07 #PM/hr 0.31 TPY PM reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Operating Restriction #1) 20 percent opacity, as a 3-minute average. Less stringent than BAT
F002	Unpaved roadways and parking areas	Chip and seal roadways and parking areas. Reasonably available control measures that are	3745-31-05	0.03 TPY PM no visible particulate emissions except for 13 minutes

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

sufficient to minimize or eliminate visible emissions of fugitive dust.

during any 60-minute period

Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Operating Restriction #2)

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	0.34

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
F001	Material Handling	Y

7 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Southeast District Office**
2195 Front Street
Logan, Ohio 43138

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was

8 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.

B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.

C. Tests shall be performed for the following source(s) and pollutant(s):

Source

Pollutant(s)

F001

PM

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Southeast District Office, 2195 Front Street, Logan, OH 43138.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

9 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. OPERATIONAL RESTRICTIONS:

1. The permittee shall employ reasonable available control measures on all coal loading and unloading stations for barges, railcars and/or trucks, coal conveyors, coal handling operations, and coal transfer points 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 adequate enclosure and reduce drop heights to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

2. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas 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 treat the unpaved roadways and parking areas with chip and seal at sufficient treatment frequencies to ensure compliance. nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/pr ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

B. MONITORING AND RECORDKEEPING:

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
F002	Monthly

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area 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. Any

11 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

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.

3. 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.
4. 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 the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

C. 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,

12 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

- b. each instance when a control measure, that was to be implemented as a result of any inspection, was not implemented.
2. The deviation 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.
3. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter.

D. TESTING REQUIREMENTS:

1. Compliance with the emission limitations for coal unloading, conveyors, handling operations, and transfer points identified above 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)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
2. Compliance with the emission limitations for the paved and unpaved roadways and parking areas 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," a such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

F001: AP-42 13.2.4.2 Emissions And Correction Parameters for aggregate handling and storage piles

$$E = k(0.0032)(U/5)^{1.3} / (M/2)^{1.4} \text{ \#/ton}$$

E	=	Emission factor
k	=	particle size multiplier (dimensionless)
U	=	mean wind speed, meters per second (m/s) (miles per hour [mph])
M	=	material moisture content (%)

13 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

$$E = 0.74(0.0032(8.7 \text{ mph}/5)^{1.3}/(7.0\%/2)^{1.4})=0.0008 \text{ \#pm/ton}$$

3 transfer points: train to hoe, hoe to hopper, hopper to truck
Max unloading and loading rate = 585 Tons/hr

$$\begin{aligned} \text{Potential emissions} &= (0.0008\text{\#PM/ton})(585 \text{ Tons/hr})=0.47\text{\#PM/hr} \\ &(0.47\text{\#/hr})(3\text{transfer points})=1.4\text{\#PM/hour} \\ &(1.4\text{\#hr})(8760 \text{ hours})/2000\text{\#/hr}=6.15 \text{ TPY} \end{aligned}$$

Allowable Emissions with 95% control using total enclosure and reduced drop heights:

$$\begin{aligned} &1.4\text{\#PM/hr}(1.95)=0.07\text{PM/hr} \\ &(0.07\text{\#/hr})(8760 \text{ hours})/2000\text{\#/hr}=0.31 \text{ TPY} \end{aligned}$$

F002: AP-42 13.2.2.2 Emissions Calculation And Correction Parameters for unpaved roadways

$$E = K(5.9)(s/12)(S/30)(W/3)^{0.7}(w/4)^{0.5} \left(\frac{365-p}{365} \right) = \text{\#PM/VMT}$$

E = emission factor
k = particle size multiplier (dimensionless)
s = silt content of road surface material (%)
S = mean vehicle speed, kilometers per hour (km/hr)(miles per hour [mph])
W = mean vehicle weight, megagrams (Mg)(ton)
w = mean number of wheels
p = number of days with at least 0.245 mm(0.01 in.) of precipitation per year (see discussion below about the effect of precipitation.)

$$\begin{aligned} \text{A: } E &= 1.0(5.9)(0.1\%/12)(10\text{mph}/30)(2 \text{ tons}/3)^{0.7}(4/4)^{0.5} \left(\frac{365 - 140}{365} \right) \\ &= 0.008\text{\#PM/VMT} \end{aligned}$$

$$890 \text{ VMT/yr}(0.008\text{\#pm/VMT}) = \underline{6.8\text{\#pm/year}}$$

$$\begin{aligned} \text{B: } E &= 1.0(5.9)(0.1\%/12)(10 \text{ mph}/30)(26 \text{ tons}/3)^{0.7}(18/4)^{0.5} \left(\frac{365-140}{365} \right) \\ &= 0.097\text{\#PM/VMT} \end{aligned}$$

$$11,100 \text{ VMT } (0.097 \text{ \#PM/VMT}) = 1078.6 \text{ \#PM/year} + 6.8\text{\#PM/year} = \underline{1085.4\text{\#PM/year}}$$

14 of 14 Pages

Facility Name: **Muskie Trans-Loading Facility**

Application Number: **06-5436**

Date: **July 8, 1998**

C: same as A

Total actual emissions = $6.8 + 1085.4 + 6.8 = 1099 \text{ \#PM/year} = 0.55 \text{ TPY PM}$

Allowable with 95% control using chip and seal:

$$0.55 \text{ TPY} (1 - .95) = 0.03 \text{ TPY PM}$$