



State of Ohio Environmental Protection Agency

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Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

10/24/01

**RE: Proposed Title V Chapter 3745-77 Permit  
01-42-00-0010  
Oglebay Norton Industrial Sands Millwood Plant**

Attn: Genevieve Damico AR-18J  
United States Environmental Protection Agency  
Region V  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for Oglebay Norton Industrial Sands Millwood Plant, has been created in Ohio EPA's State Air Resources System (STARS) on 10/24/01, for review by USEPA. This proposed action is identified in STARS as  3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and  Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact Mike Ahern, DAPC Permit Management Unit supervisor at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,



Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Central District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 10/24/01

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 01-42-00-0010 to:
Oglebay Norton Industrial Sands Millwood Plant
26900 Coshocton Road
Howard, OH 43028

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Activity Description. Rows include F001, F009, F010, P002, P005, P006, P007, P008, P009, P011, P013, P014, P016, and P901.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Central District Office
3232 Alum Creek Drive
PO Box 1049
Columbus, OH 43216-1049
(614) 728-3778

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director



## PART I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Section

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written 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.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to

the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. 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.

## **8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

## **9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

## 10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## 11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but

excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

#### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

#### **15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

#### **16. Off Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

## **17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

## **18. Insignificant Activity**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

## **B. State Only Enforceable Section**

### **1. Permit to Install Requirement**

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### **2. Reporting Requirements Related to Monitoring and Recordkeeping 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. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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.

## **Part II - Specific Facility Terms and Conditions**

### **A. State and Federally Enforcable Section**

**None**

### **B. State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

- F002 - plant stockpiles;
- F003 - quarry blasting;
- F004 - quarry material handling;
- F005 - jaw crusher;
- F006 - cone crusher;
- F007 - rod mill I;
- F008 - rod mill II;
- P004 - flint storage silos;
- P010 - acid reactor;
- P012 - glass sand bulk loadout;
- P015 - whole grain (steel/glass) sand bagger; and
- P017 - limer.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit to install for the emissions unit.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Plant and Quarry Haul Roads (F001)

**Activity Description:** Unpaved plant and quarry haul roads are used for car and truck traffic.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
unpaved plant and quarry haul roads	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

2. **Additional Terms and Conditions**

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this fugitive emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
unpaved plant and quarry haul roads	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Sand Blender I (F009)

**Activity Description:** Material handling, blending and screening of washed sand and organic soil ammendment materials.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand blending operation 1 with a diesel-fired 45 hp engine	OAC rule 3745-31-05(A)(3) (PTI # 01-08349)	Carbon monoxide emissions from the diesel engine shall not exceed 0.3 pound per hour and 1.32 tons per year.  Sulfur dioxide emissions from the diesel engine shall not exceed 0.09 pound per hour and 0.4 ton per year.  Nitrogen oxides emissions from the diesel engine shall not exceed 1.4 pounds per hour and 6.11 tons per year.  Volatile organic compound emissions from the diesel engine shall not exceed 0.11 pound per hour and 0.5 ton per year.  Particulate emissions from the diesel engine shall not exceed 0.1 pound per hour and 0.43 ton per year.  Particulate emissions from the sand blending operation shall not exceed 0.27 pound per hour and 1.18 tons per year.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.b through A.1.2.d)
		Visible fugitive emissions of particulate shall not exceed 20% opacity as a 3-minute average.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(B)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) because the rated heat input capacity of the diesel-fired engine is less than ten MMBtu per hour.

**2. Additional Terms and Conditions**

**2.a** The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:

hoppers, belt feeders, conveyors, mixing till and deck screens

**2.b** The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure to ensure compliance:

material handling operations: hoppers, belt feeders, conveyors, mixing till and deck screens

control measure: watering of the appropriate material handling operations, as needed, to minimize or eliminate visible emissions of fugitive dust

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

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during the operation of the material handling operations until further observation confirms that use of the control measure is unnecessary.

## 2. Additional Terms and Conditions (continued)

- 2.d Implementation of the above-mentioned control measure in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation      minimum inspection frequency

hoppers and deck screens              daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA, Central 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;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure;
  - c. the dates the control measure was implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure was implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions from the diesel engine shall not exceed 0.1 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for particulate emissions from the diesel engine may be determined by multiplying an emission factor of 0.0022 pound of particulate emissions per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

- 1.b** Emission Limitation: Particulate emissions from the sand blending operation shall not exceed 0.27 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for particulate emissions from the blending of sand shall be determined by multiplying the corresponding maximum process weight rates of the equipment associated with this operation times the appropriate AP-42 emission factor, and summing the hourly emission rates. These emission factors are specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(1/95).

- 1.c** Emission Limitation: Sulfur dioxide emissions from the diesel engine shall not exceed 0.09 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying an emission factor of 0.00205 lb of sulfur dioxide per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6C.

- 1.d** Emission Limitation: Nitrogen oxides emissions from the diesel engine shall not exceed 1.4 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for NO<sub>x</sub> may be determined by multiplying an emission factor of 0.031 pound of NO<sub>x</sub> per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

- 1.e** Emission Limitation: Volatile organic compound emissions from the diesel engine shall not exceed 0.11 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for VOC may be determined by multiplying an emission factor of 0.0025141 pound of VOC per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

- 1.f** Emission Limitation: Carbon monoxide emissions from the diesel engine shall not exceed 0.3 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO may be determined by multiplying an emission factor of 0.00668 pound of CO per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

## **V. Testing Requirements (continued)**

- 1.g** Emission Limitations: Nitrogen oxides emissions from the diesel engine shall not exceed 6.11 tons per year; sulfur dioxide emissions from the diesel engine shall not exceed 0.4 ton per year; carbon monoxide emissions from the diesel engine shall not exceed 1.32 tons per year; volatile organic compound emissions from the diesel engine shall not exceed 0.5 ton per year; particulate emissions from the sand blending operation shall not exceed 1.18 tons per year; and particulate emissions from the diesel engine shall not exceed 0.43 ton per year.

Applicable Compliance Method: Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- 2.** Emission Limitation: Visible fugitive emissions of particulates shall not exceed 20% opacity as a 3-minute average.

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand blending operation 1 with a diesel-fired 45 hp engine	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Sand Blender II (F010)

**Activity Description:** Material handling, blending and screening of washed sand and organic soil ammendment materials.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand blending operation 2 with a diesel-fired 45 hp engine	OAC rule 3745-31-05(A)(3) (PTI # 01-08349)	Carbon monoxide emissions from the diesel engine shall not exceed 0.3 pound per hour and 1.32 tons per year.  Sulfur dioxide emissions from the diesel engine shall not exceed 0.09 pound per hour and 0.4 ton per year.  Nitrogen oxides emissions from the diesel engine shall not exceed 1.4 pounds per hour and 6.11 tons per year.  Volatile organic compound emissions from the diesel engine shall not exceed 0.11 pound per hour and 0.5 ton per year.  Particulate emissions from the diesel engine shall not exceed 0.1 pound per hour and 0.43 ton per year.  Particulate emissions from the sand blending operation shall not exceed 0.27 pound per hour and 1.18 tons per year.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.b through A.1.2.d)
		Visible fugitive emissions of particulate shall not exceed 20% opacity as a 3-minute average.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(B)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) because the rated heat input capacity of the diesel-fired engine is less than ten MMBtu per hour.

**2. Additional Terms and Conditions**

**2.a** The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:

hoppers, belt feeders, conveyors, mixing till and deck screens

**2.b** The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure to ensure compliance:

material handling operations: hoppers, belt feeders, conveyors, mixing till and deck screens

control measure: watering of the appropriate material handling operations, as needed, to minimize or eliminate visible emissions of fugitive dust

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

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during the operation of the material handling operations until further observation confirms that use of the control measure is unnecessary.

## 2. Additional Terms and Conditions (continued)

- 2.d Implementation of the above-mentioned control measure in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation      minimum inspection frequency

hoppers and deck screens              daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA, Central 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;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure;
  - c. the dates the control measure was implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure was implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions from the diesel engine shall not exceed 0.1 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for particulate emissions from the diesel engine may be determined by multiplying an emission factor of 0.0022 pound of particulate emissions per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

- 1.b** Emission Limitation: Particulate emissions from the sand blending operation shall not exceed 0.27 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for particulate emissions from the blending of sand shall be determined by multiplying the corresponding maximum process weight rates of the equipment associated with this operation times the appropriate AP-42 emission factor, and summing the hourly emission rates. These emission factors are specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 11.19.2, Table 11.19.2-2(1/95).

- 1.c** Emission Limitation: Sulfur dioxide emissions from the diesel engine shall not exceed 0.09 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying an emission factor of 0.00205 lb of sulfur dioxide per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6C.

- 1.d** Emission Limitation: Nitrogen oxides emissions from the diesel engine shall not exceed 1.4 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for NO<sub>x</sub> may be determined by multiplying an emission factor of 0.031 pound of NO<sub>x</sub> per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

- 1.e** Emission Limitation: Volatile organic compound emissions from the diesel engine shall not exceed 0.11 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for VOC may be determined by multiplying an emission factor of 0.0025141 pound of VOC per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

- 1.f** Emission Limitation: Carbon monoxide emissions from the diesel engine shall not exceed 0.3 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO may be determined by multiplying an emission factor of 0.00668 pound of CO per horsepower hour by the emissions unit's maximum horsepower (45). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section Section 3.3, Table 3.3-1(10/96). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

## **V. Testing Requirements (continued)**

- 1.g** Emission Limitations: Nitrogen oxides emissions from the diesel engine shall not exceed 6.11 tons per year; sulfur dioxide emissions from the diesel engine shall not exceed 0.4 ton per year; carbon monoxide emissions from the diesel engine shall not exceed 1.32 tons per year; volatile organic compound emissions from the diesel engine shall not exceed 0.5 ton per year; particulate emissions from the sand blending operation shall not exceed 1.18 tons per year; and particulate emissions from the diesel engine shall not exceed 0.43 ton per year.

Applicable Compliance Method: Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- 2.** Emission Limitation: Visible fugitive emissions of particulates shall not exceed 20% opacity as a 3-minute average.

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand blending operation 2 with a diesel-fired 45 hp engine	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** AC Ball Mill (P002)

**Activity Description:** P002 formerly included P007 and P008, which are now designated as separate units. AC Ball Mill grinds glass sand into the finer grade flint sand by tumbling compressed sand "pebbles" with glass sand.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
AC ball mill controlled by the W.W. Sly number 45 type 360 dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 9.17 pounds per hour from emissions units P002 and P007 combined, based upon curve P-2 of Figure II.
	OAC rule 3745-17-07(A)(1)	See A.I.2.c below. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon a calculated uncontrolled mass rate of emissions (UMRE). The calculated UMRE was determined by dividing the controlled rate of particulate emissions (observed during the June, 2000 emissions testing to be 1.2 pounds per hour) by 1 minus the manufacturer's operating control efficiency of the control device as follows

$$UMRE = 1.2 / (1 - 0.98) = 60.5 \text{ pounds of particulates per hour}$$

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. Further particulate emissions testing may alter the UMRE for this emissions unit.

## **II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 4.5 to 6.5 inches of water while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

## **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions shall not exceed 9.17 pounds per hour from emissions units P002 and P007 combined, based upon curve P-2 of Figure II.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while this emissions unit and P007 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 2.** Emission Limitation: 20% opacity as a 6-minute average

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
AC ball mill controlled by the W.W. Sly number 45 type 360 dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Barber Green Sand Dryer (P005)

**Activity Description:** Sand dryers dry steel sand after it has been washed. (Formerly permitted as part of P001).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Barber Green rotary sand dryer (natural gas-fired) controlled by a DUCON 72 wet scrubber	OAC rule 3745-31-05(A)(3) (PTI # 01-08137)	Carbon monoxide emissions shall not exceed 2.08 pounds per hour and 9.09 tons per year.
		Sulfur dioxide emissions shall not exceed 0.01 pound per hour and 0.06 ton per year.
		Nitrogen oxides emissions shall not exceed 2.47 pounds per hour and 10.82 tons per year.
		Volatile organic compound emissions shall not exceed 0.14 pound per hour and 0.60 ton per year.
		Particulate emissions shall not exceed 7.0 pounds per hour and 30.5 tons per year.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(2)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-18-06(G)

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

**2. Additional Terms and Conditions**

- 2.a** The wet scrubber controlling the particulate emissions from this emissions unit shall operate with a minimum control efficiency of 98%.

**II. Operational Restrictions**

1. The scrubber water flow rate shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

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

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, on a daily basis.
- b. The downtime for the control device, monitoring equipment, and the associated emissions unit.

**IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required level.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

**V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitations: Particulate emissions shall not exceed 7.0 pounds per hour and the scrubber controlling the particulate emissions from this emissions unit shall operate with a minimum control efficiency of 98%.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office. A particulate emissions test shall be conducted at the inlet as well as the outlet of the control device for purposes of determining the efficiency of the control device.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 1.b** Emission Limitation: Nitrogen oxides emissions shall not exceed 2.47 pounds per hour.

**Applicable Compliance Method:** Compliance with the allowable mass emission rate for NO<sub>x</sub> may be determined by multiplying an emission factor of 100 pounds of NO<sub>x</sub> per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

- 1.c** Emission Limitation: Volatile organic compound emissions shall not exceed 0.14 pound per hour.

**Applicable Compliance Method:** Compliance with the allowable mass emission rate for VOC may be determined by multiplying an emission factor of 5.5 pounds of VOC per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

## V. Testing Requirements (continued)

- 1.d** Emission Limitation: Carbon monoxide emissions shall not exceed 2.08 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO may be determined by multiplying an emission factor of 84 pounds of CO per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

- 1.e** Emission Limitation: Sulfur dioxide emissions shall not exceed 0.01 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying an emission factor of 0.6 lb of sulfur dioxide per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6C.

- 2.** Emission Limitations: Nitrogen oxides emissions shall not exceed 10.82 tons per year; sulfur dioxide emissions shall not exceed 0.06 ton per year; carbon monoxide emissions shall not exceed 9.09 tons per year; volatile organic compound emissions shall not exceed 0.60 ton per year; and particulate emissions shall not exceed 30.5 tons per year.

Applicable Compliance Method: Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- 3.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Barber Green rotary sand dryer (natural gas-fired) controlled by a DUCON 72 wet scrubber	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Aztec Sand Dryer (P006)

**Activity Description:** Sand dryers dry glass sand after it has been washed. (Formerly permitted as part of P001).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Aztec rotary sand dryer (natural gas-fired) controlled by a DUCON 78 wet scrubber	OAC rule 3745-31-05(A)(3) (PTI # 01-8137)	Carbon monoxide emissions shall not exceed 2.23 pounds per hour and 9.78 tons per year.
		Sulfur dioxide emissions shall not exceed 0.02 pound per hour and 0.07 ton per year.
		Nitrogen oxides emissions shall not exceed 2.66 pounds per hour and 11.64 tons per year
		Volatile organic compound emissions shall not exceed 0.15 pound per hour and 0.64 ton per year.
		Particulate emissions of shall not exceed 8.8 pounds per hour and 38.5 tons per year.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
		Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(2)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(G)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- The wet scrubber controlling the particulate emissions from this emissions unit shall operate with a minimum control efficiency of 90%.

## II. Operational Restrictions

1. The scrubber water flow rate shall be continuously maintained at a value of not less than 25 gallons per minute at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, on a daily basis.
- b. The downtimes for the control device, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required level.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitations: Particulate emissions shall not exceed 8.8 pounds per hour and the scrubber controlling the particulate emissions from this emissions unit shall operate with a minimum control efficiency of 90%.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.

- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.

- iii. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office. A particulate emissions test shall be conducted at the inlet as well as the outlet of the control device for purposes of determining the efficiency of the control device.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

## V. Testing Requirements (continued)

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 1.b** Emission Limitation: Nitrogen oxides emissions shall not exceed 2.66 pounds per hour .

Applicable Compliance Method: Compliance with the allowable mass emission rate for NO<sub>x</sub> may be determined by multiplying an emission factor of 100 pounds of NO<sub>x</sub> per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

- 1.c** Emission Limitation: Volatile organic compound emissions shall not exceed 0.15 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for VOC may be determined by multiplying an emission factor of 5.5 pounds of VOC per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

- 1.d** Emission Limitation: Sulfur dioxide emissions shall not exceed 0.02 pound per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying an emission factor of 0.6 lb of sulfur dioxide per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6C.

- 1.e** Emission Limitation: Carbon monoxide emissions shall not exceed 2.23 pounds per hour.

Applicable Compliance Method: Compliance with the allowable mass emission rate for CO may be determined by multiplying an emission factor of 84 pounds of CO per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly consumption rate (26,568.6 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1(7/98). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

- 2.** Emission Limitations: Nitrogen oxides emissions shall not exceed 11.64 tons per year; sulfur dioxide emissions shall not exceed 0.07 ton per year; carbon monoxide emissions shall not exceed 9.78 tons per year; volatile organic compound emissions shall not exceed 0.64 ton per year; and particulate emissions shall not exceed 38.5 tons per year.

Applicable Compliance Method: Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- 3.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Aztec rotary sand dryer (natural gas-fired) controlled by a DUCON 78 wet scrubber	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Patterson Ball Mill (P007)

**Activity Description:** Patterson Ball Mill grinds glass sand into the finer grade flint sand by tumbling compressed sand "pebbles" with glass sand. (Formerly permitted as part of P002).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Patterson ball mill controlled by the W.W. Sly number 45 type 360 dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 9.17 pounds per hour from emissions units P002 and P007 combined, based upon curve P-2 of Figure II.
	OAC rule 3745-17-07(A)(1)	See A.I.2.c below. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon a calculated uncontrolled mass rate of emissions (UMRE). The calculated UMRE was determined by dividing the controlled rate of particulate emissions (observed during the June, 2000 emissions testing to be 1.2 pounds per hour) by 1 minus the manufacturer's operating control efficiency of the control device as follows

$$UMRE = 1.2 / (1 - 0.98) = 60.5 \text{ pounds of particulates per hour}$$

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. Further particulate emissions testing may alter the UMRE for this emissions unit.

## **II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 4.5 to 6.5 inches of water while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

## **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions shall not exceed 9.17 pounds per hour from emissions units P002 and P007 combined, based upon curve P-2 of Figure II.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while this emissions unit and P002 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 2.** Emission Limitation: 20% opacity as a 6-minute average

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Patterson ball mill controlled by the W.W. Sly number 45 type 360 dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hardinge Ball Mill (P008)

**Activity Description:** Hardinge Ball Mill grinds glass sand into the finer grade flint sand by tumbling compressed sand "pebbles" with glass sand. (Formerly permitted as part of P002).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hardinge ball mill controlled by the Wheelabrator Fry dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	See A.I.2.c below.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. To ensure that Figure II will not be applicable, the uncontrolled mass rate of particulate emissions is limited to less than 10 pounds per hour.

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. The results from the outlet emissions testing indicated that the UMRE from this emissions unit is less than 10 pounds of particulates per hour, based upon a control efficiency of 98% for the baghouse. Further particulate emissions testing may alter the UMRE for this emissions unit.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1.5 to 3.5 inches of water while the emissions unit is in operation.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

### **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: The uncontrolled mass rate of emissions shall not exceed 10 pounds per hour of particulate emissions.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 2.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hardinge ball mill controlled by the Wheelabrator Fry dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Flint/Flour Sand Bulk Loadout (P009)

**Activity Description:** Flint and flour sand exits silos and is loaded onto trucks. (Formerly permitted as Z001).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
flint/flour sand bulk loadout controlled by the Sly type H-2491A dust collector (baghouse) and a Pebco dustless loading spout and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 11.83 pounds per hour from this emissions unit and P901 combined, based upon curve P-2 of Figure II.
		See A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
		See A.I.2.a below.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon a calculated uncontrolled mass rate of emissions (UMRE). The calculated UMRE was determined by dividing the controlled rate of particulate emissions (observed during the June, 2000 emissions testing to be 1.7 pounds per hour) by 1 minus the manufacturer's operating control efficiency of the control device as follows

$$UMRE = 1.7 / (1 - 0.98) = 85 \text{ pounds of particulates per hour}$$

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. Further particulate emissions testing may alter the UMRE for this emissions unit.

## **II. Operational Restrictions**

1. The pressure drop across the Sly type H-2491A dust collector shall be maintained within the range of 3 to 5 inches of water while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Sly type H- 2491A dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

## **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions shall not exceed 11.83 pounds per hour from this emissions unit and P901 combined, based upon curve P-2 of Figure II.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while this emissions unit and P901 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 2.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
flint/flour sand bulk loadout controlled by the Sly type H-2491A dust collector (baghouse) and a Pebco dustless loading spout and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Glass Sand Storage Silos (P011)

**Activity Description:** Glass sand is stored in silos prior to loadout onto trucks. (Formerly permitted as Z003).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass sand storage silos controlled by the Wheelabrator dust collector (baghouse) and Torit dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.
	OAC rule 3745-17-07(A)(1)	See A.I.2.c below. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon an uncontrolled mass rate of emissions (UMRE) observed during the June, 2000 emissions testing to be 297 pounds of particulates per hour. Further particulate emissions testing may alter the UMRE for this emissions unit.

##### II. Operational Restrictions

1. The pressure drop across the Wheelabrator dust collector shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.
2. The pressure drop across the Torit dust collector shall be maintained within the range of 0.5 to 4 inches of water while the emissions unit is in operation.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Wheelabrator dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Torit dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

### **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either of the baghouses did not comply with the allowable ranges specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.

Applicable Compliance Method: The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates. Emission tests also shall be performed at the inlet of the control device for purposes of determining the uncontrolled mass rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.
- iii. The following test methods shall be employed for the UMRE and to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.
- iv. The test(s) shall be conducted while this emissions unit, P013 and P016 are operating at or near their maximum capacity, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

- 2.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass sand storage silos controlled by the Wheelabrator dust collector (baghouse) and Torit dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Steel Sand Storage Silos (P013)

**Activity Description:** Steel sand is stored in silos prior to loadout onto trucks. (Formerly permitted as Z005).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
steel sand storage silos controlled by the Wheelabrator dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.
	OAC rule 3745-17-07(A)(1)	See A.I.2.c below. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon an uncontrolled mass rate of emissions (UMRE) observed during the June, 2000 emissions testing to be 297 pounds of particulates per hour. Further particulate emissions testing may alter the UMRE for this emissions unit.

##### II. Operational Restrictions

1. The pressure drop across the Wheelabrator dust collector shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Wheelabrator dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.

Applicable Compliance Method: The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates. Emission tests also shall be performed at the inlet of the control device for purposes of determining the uncontrolled mass rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.
- iii. The following test methods shall be employed for the UMRE and to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.
- iv. The test(s) shall be conducted while this emissions unit, P011 and P016 are operating at or near their maximum capacity, unless otherwise specified or approved by the Ohio EPA Central District Office.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

2. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
steel sand storage silos controlled by the Wheelabrator dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Steel Sand Bulk Loadout (P014)

**Activity Description:** Steel sand is top-loaded into open trucks from the storage silos. (Formerly permitted as Z006).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
steel sand bulk loadout controlled by a C & W baghouse and a Pebco dustless loading spout	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 9.06 pounds per hour based upon curve P-2 of Figure II.
		See A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
		See A.I.2.a below.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon a calculated uncontrolled mass rate of emissions (UMRE). The calculated UMRE was determined to be 59.5 pounds of particulates per hour based upon the June, 2000 emissions testing of a similar emissions unit (P009).

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. Further particulate emissions testing may alter the UMRE for this emissions unit.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.3 to 3.0 inches of water while the emissions unit is in operation.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

### **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a Emission Limitation: Particulate emissions shall not exceed 9.06 pounds per hour based upon curve P-2 of Figure II.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

2. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
steel sand bulk loadout controlled by a C & W baghouse and a Pebco dustless loading spout	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Sand Dryers Related Process Equipment (P016)

**Activity Description:** Sand handling operations including conveying, screening, and transfer points. (Formerly permitted as Z010).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand handling operations controlled by the Wheelabrator dust collector (baghouse) and associated ductwork	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.
	OAC rule 3745-17-07(A)(1)	See A.I.2.c below. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon an uncontrolled mass rate of emissions (UMRE) observed during the June, 2000 emissions testing to be 297 pounds of particulates per hour. Further particulate emissions testing may alter the UMRE for this emissions unit.

##### II. Operational Restrictions

1. The pressure drop across the Wheelabrator dust collector shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the Wheelabrator dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Particulate emissions shall not exceed 30.21 pounds per hour from emissions units P011, P013, and P016 combined, based upon curve P-2 of Figure II.

Applicable Compliance Method: The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for particulate matter in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates. Emission tests also shall be performed at the inlet of the control device for purposes of determining the uncontrolled mass rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.
- iii. The following test methods shall be employed for the UMRE and to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.
- iv. The test(s) shall be conducted while this emissions unit, P011 and P013 are operating at or near their maximum capacity, unless otherwise specified or approved by the Ohio EPA Central District Office.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

2. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand handling operations controlled by the Wheelabrator dust collector (baghouse) and associated ductwork	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Flint Bagger/Manual Palletizer (P901)

**Activity Description:** Flint sand is packaged in paper bagging. Bagged flint sand is manually transferred from a conveyor.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
flint bagger/manual pelletizer controlled by the Sly type H-2491A dust collector (baghouse)	OAC rule 3745-17-11(B)(2)	Particulate emissions shall not exceed 11.83 pounds per hour from this emissions unit and P009 combined, based upon curve P-2 of Figure II.
		See A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
		See A.I.2.a below.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-07(B)	See A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.c Pursuant to OAC rule 3745-17-11(B)(2), this emissions unit is limited to those particulate emission rates established by curve P-2 of Figure II. The particulate emission limit stated in this permit is based upon a calculated uncontrolled mass rate of emissions (UMRE). The calculated UMRE was determined by dividing the controlled rate of particulate emissions (observed during the June, 2000 emissions testing to be 1.7 pounds per hour) by 1 minus the manufacturer's operating control efficiency of the control device as follows

$$UMRE = 1.7 / (1 - 0.98) = 85 \text{ pounds of particulates per hour}$$

Note: Prior to the June 2000 emissions testing, CDO determined, based upon field observations of the inlet ductwork, that a determination of the uncontrolled mass rate of emissions was not physically and/or economically practical. Therefore, CDO requested that this facility only test this emissions unit at the outlet of the control device. Further particulate emissions testing may alter the UMRE for this emissions unit.

## **II. Operational Restrictions**

1. The pressure drop across the Sly type H-2491A dust collector shall be maintained within the range of 3 to 5 inches of water while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving 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 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

## **IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

## **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: Particulate emissions shall not exceed 11.83 pounds per hour from this emissions unit and P009 combined, based upon curve P-2 of Figure II.

Applicable Compliance Method: The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate for for particulates in accordance with the following requirements:

- i. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.
- ii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5, 40 CFR Part 60, Appendix A.
- iii. The test(s) shall be conducted while this emissions unit and P009 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- 2.** Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

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

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
flint bagger/manual pelletizer controlled by the Sly type H-2491A dust collector	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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