



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
50 West Town Street, Suite 700  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

**RE: FINAL PERMIT TO INSTALL  
PORTAGE COUNTY  
Application No: 16-02540  
Fac ID: 1667090000**

**DATE: 6/12/2008**

Harbison-Walker Refractories Co  
Bruce Morgan  
400 Fairway Dr  
Moon Twp, PA 15108

**CERTIFIED MAIL**

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

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

*Michael W. Ahern* 

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

CC: USEPA

ARAQMD



Permit To Install  
Terms and Conditions

Issue Date: 6/12/2008  
Effective Date: 6/12/2008

**FINAL PERMIT TO INSTALL 16-02540**

Application Number: 16-02540

Facility ID: 1667090000

Permit Fee: **\$7750**

Name of Facility: Harbison-Walker Refractories Co

Person to Contact: Bruce Morgan

Address: 400 Fairway Dr  
Moon Twp, PA 15108

Location of proposed air contaminant source(s) [emissions unit(s)]:

**East Center St State Rte 303  
Windham, Ohio**

Description of proposed emissions unit(s):

**Grinding, Screening, Material Handling, Batching - Modification to Emissions Unit P001.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

#### 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, 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.
- 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 of federally enforceable 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 made to

the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **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 shall be submitted pursuant to 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 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 re-issuance, or modification
- 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, 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 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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 ORC section 3704.08.
  - 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.

#### **10. Permit-To-Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

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

#### **12. 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.

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**Harbison-Walker Refractories Co**

**PTI Application: 16-02540**

**Issued: 6/12/2008**

**Facility ID:**

**1667090000**

### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

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

### **2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable 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 state-only required 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 (i.e., postmarked) quarterly, 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. 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.

**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**5. Construction of New Sources(s)**

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

**6. Public Disclosure**

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

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install.

The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit-To-Install Summary of Allowable Emissions**

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

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

Pollutant

Tons Per Year

PE

N/A

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

### Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

#### A. State and Federally Enforceable Section

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

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

#### Operations, Property, and/or Equipment - (P911) - Batts/Scraps/MGG Raw Material Handling

Hopper, conveyor belts, elevator, distribution gate and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 2.4 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 12.2 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

#### 2. Additional Terms and Conditions

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 2.4 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P911) - Batts/Scraps/MGG Raw Material Handling**  
Hopper, conveyor belts, elevator, distribution gate and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P912) - Grinding & Screening**

Conveyor belts, crusher, elevator and screens. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 12.3 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 113.8 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

**2. Additional Terms and Conditions**

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 12.3 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P912) - Grinding & Screening**

Conveyor belts, crusher, elevator and screens. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P913) - Material Batching**

Hoppers, conveyor belts and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 3.7 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 18.45 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

**2. Additional Terms and Conditions**

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 3.7 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P913) - Material Batching**

Hoppers, conveyor belts and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P914) - Ball Mill No. 1**

Ball mill, conveyor belt, elevator and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 6.0 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 37.6 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

**2. Additional Terms and Conditions**

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 6.0 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P914) - Ball Mill No. 1**

Ball mill, conveyor belt, elevator and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

### Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

#### A. State and Federally Enforceable Section

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

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

#### Operations, Property, and/or Equipment - (P915) - Ball Mill No. 2

Ball mill, conveyor belt, elevator and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 6.0 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 37.6 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

#### 2. Additional Terms and Conditions

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 6.0 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P915) - Ball Mill No. 2**

Ball mill, conveyor belt, elevator and bins. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

### Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

#### A. State and Federally Enforceable Section

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

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

#### Operations, Property, and/or Equipment - (P916) - Mixers No. 1 & 2

Mixer No. 1, Mixer No. 2, skip hoist, weigh hopper and conveyor belt. Dust collectors (baghouses) serve this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 3.6 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 18 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

#### 2. Additional Terms and Conditions

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ each baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across each baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of a baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when any baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across each baghouse serving this emissions unit, 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 each baghouse on a daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or any baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or any baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that any baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across any baghouse serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or any baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 3.6 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P916) - Mixers No. 1 & 2**

Mixer No. 1, Mixer No. 2, skip hoist, weigh hopper and conveyor belt. Dust collectors (baghouses) serve this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P917) - Mixers No. 3 & 4**

Mixer No. 3, Mixer No. 4, skip hoist, weigh hopper and conveyor belt. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 3.6 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 18 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

**2. Additional Terms and Conditions**

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 3.6 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P917) - Mixers No. 3 & 4**

Mixer No. 3, Mixer No. 4, skip hoist, weigh hopper and conveyor belt. Dust collector (baghouse) serves this emissions unit as process control catching and returning reusable material to the process. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P918) - Batts/Bauxite Material Handling**

Hoppers, conveyor belts and crusher. Dust collector (baghouse) serves this emissions unit as pollution control. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(11)(e) OAC rule 3745-17-08(A)(1)	This facility is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A)(1) and OAC rule 3745-17-07(B)(11)(e), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B) and OAC rule 3745-17-07(B).
OAC rule 3745-17-11(B)	PE shall not exceed 5.5 pounds per hour (stack emissions). (based upon Figure II, which is more stringent than Table I, and uncontrolled mass rate of emissions of 33 pounds per hour)
OAC rule 3745-31-05(A)(3)(a)(ii)	Employment of "best available technology" or "BAT", as defined by OAC rule 3745-31-01(T), is not a requirement since the emissions unit's potential to emit PE, taking into account the baghouse serving this emissions unit, is less than 10 tons per year.

**2. Additional Terms and Conditions**

- 2.a The above hourly PE emissions limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limit.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

## **II. Operational Restrictions**

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within 1 - 10 inches of water, while the emissions unit is in operation.

Operation of the baghouse outside of its respective pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigations to establish corrective action.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, 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 daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible PE from the emissions unit and/or the baghouse serving this emissions unit. The presence or absence of any visible PE from the emissions unit and/or baghouse serving this emissions unit shall be noted daily in an operations log. If visible PE are observed, the permittee shall also note the following in an 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 determined cause of the abnormal emissions, if a cause can be determined upon investigation;
  - d. the total duration of the visible PE incident; and
  - e. any corrective actions taken to eliminate the visible PE.

## **IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
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 serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible PE were observed from the emissions unit and/or baghouse serving this emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these special terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.  
  
Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
  - b. Emission Limitation: PE shall not exceed 5.5 pounds per hour (stack emissions).  
  
Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

#### **VI. Miscellaneous Requirements**

1. Upon final issuance of this permit, all operations of P001 ("Basic Refractory Line") shall be administratively converted into eight separate emissions units, P911 through P918. Ohio EPA emissions unit identification P001 shall be permanently retired at this facility.

**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P918) - Batts/Bauxite Material Handling**

Hoppers, conveyor belts and crusher. Dust collector (baghouse) serves this emissions unit as pollution control. This emissions unit was formerly a part of P001 ("Basic Refractory Line"). This permit action addresses physical modifications to P001, and also administratively breaks up P001 into eight separate emissions units, P911 through P918, to facilitate compliance demonstration.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
"Toxic Air Contaminant Statute"	NONE

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

## **VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P911

EMISSIONS UNIT DESCRIPTION Batts Scraps MGG Raw Material Handling

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				2.4 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?  
 N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P912

EMISSIONS UNIT DESCRIPTION Grinding and Screening

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				12.3 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

**Harbison-Walker Refractories Co**  
**PTI Application: 16-02540**  
**Issued: 6/12/2008**

**Facility ID: 1667090000**

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P913

EMISSIONS UNIT DESCRIPTION Material Batching

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				3.7 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

**Harbison-Walker Refractories Co**  
**PTI Application: 16-02540**  
**Issued: 6/12/2008**

**Facility ID: 1667090000**

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P914

EMISSIONS UNIT DESCRIPTION Ball Mill 1

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				6.0 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

**Harbison-Walker Refractories Co**  
**PTI Application: 16-02540**  
**Issued: 6/12/2008**

**Facility ID: 1667090000**

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P915

EMISSIONS UNIT DESCRIPTION Ball Mill 2

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				6.0 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO

**Harbison-Walker Refractories Co**  
**PTI Application: 16-02540**  
**Issued: 6/12/2008**

**Facility ID: 1667090000**

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P916

EMISSIONS UNIT DESCRIPTION Mixers 1 and 2

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				3.6 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

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**PTI Application: 16-02540**  
**Issued: 6/12/2008**

**Facility ID: 1667090000**

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

SIC CODE 3297 SCC CODE 3-05-006-12 EMISSIONS UNIT ID P917

EMISSIONS UNIT DESCRIPTION Mixers 3 and 4

DATE INSTALLED after pti issued

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				3.6 lbs/hr	
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

N/A

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

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IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_



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IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_