

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install ENTER PTI NUMBER HERE

A. Source Description

This permit to install is for the installation of several emissions units to manufacturer cured resin bonded alumina/magnesite carbon refractory shapes. The new emissions units consist of three mixers (P018 - P020), minor additive batching and conveying (P021), batching of major materials (P022), cure oven (P023), and screening, conveying, and storage (P904).

B. Facility Emissions and Attainment Status

Based on the actual emissions, the facility is a minor source. These new installations have a potential to emit of 439 tons of particulate emissions per year. Portage county is attainment for particulates.

C. Source Emissions

The facility has requested more stringent hourly emission limitations to avoid PSD permitting for particulate emissions. Also, to avoid state modeling requirements the facility has requested production limitations on each of the emissions units. With the production limitations and the more stringent hourly emission limitations, the potential to emit for PM-10 is below 10 tons per year.

D. Conclusion

The new installation will not be considered major for PSD permitting and no modeling of the particulate emissions will be required.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
PORTAGE COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 16-02038

DATE: 8/1/2000

Harbison-Walker Refractories Co
John Stock
PO Box 397
Windham, OH 44288

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$6800** will be due. Please do not submit any payment now.

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

Very truly yours,

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

CC: USEPA
WV

ARAQMD
PA

Akron Metro Area Trans Study



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: To be entered upon final issuance

DRAFT PERMIT TO INSTALL 16-02038

Application Number: 16-02038
APS Premise Number: 1667090000
Permit Fee: **To be entered upon final issuance**
Name of Facility: Harbison-Walker Refractories Co
Person to Contact: John Stock
Address: PO Box 397
Windham, OH 44288

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

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

Description of proposed emissions unit(s):

Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

Harbison-Walker Refractories Co

Facility ID: 1667090000

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calendar quarters. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports 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 reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

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

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.

Harbison-Walker Refractories Co

Facility ID: 1667090000

PTI Application: 16-02038

Issued: To be entered upon final issuance

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 To Install 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 thirty (30) days after commencing operation of the source(s) covered by this permit.

Harbison-Walker Refractories Co

Facility ID: 1667090000

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Issued: To be entered upon final issuance

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. 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. 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.

5. Termination of Permit To Install

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

6. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

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

7. 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.

8. 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).

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9. 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.

10. Construction Compliance Certification

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

11. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	12.79
PM-10	9.19
NOx	18.92
VOC	17.52
CO	8.85
SO2	0.04

Harbison-Walker Refractories Co

Facility ID: 1667090000

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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

Harbison-Walker Refractories Co
PTI Application: 16-02028
Issued

Facility ID: 1667090000

Emissions Unit ID: **P018**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-21-07(G)(2)
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P018 - Eirich DE-22 mixer - AMC Mixer #1 with a baghouse as control.	OAC rule 3745-31-05(A)(3)	
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OAC rule 3745-31-05(D)

OAC rule 3745-17-07

OAC rule 3745-17-11

Applicable Emissions
Limitations/Control
Measures

0.13 pound of particulate emissions* (PE) per hour (See A.I.2.a below.) and 0.0217 pound of PE per ton of product mixed

*The particulate emissions are considered to be PM-10.

0.5 pound of volatile organic compounds (VOC) per hour

2.19 tons of VOC per year

See A.I.2.b below.

0.78 ton of PE per year for emissions units P018, P019, and P020, combined, as a rolling 12-month summation

See A.II.2 below.

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

See A.I.2.c below.

See A.I.2.c below.

2. Additional Terms and Conditions

2.a Harbison-Walker Refractories Company has accepted this emissions limit which is more

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stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering PSD permitting.

- 2.b** All of the particulate emissions from this emissions unit shall be vented to the baghouse.
- 2.c** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

- 1. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
- 2. The maximum annual production rate for emissions units P018, P019, and P020 shall not exceed 72,000 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	6,000
1-2	12,000
1-3	18,000
1-4	24,000
1-5	30,000
1-6	36,000
1-7	42,000
1-8	48,000
1-9	54,000
1-10	60,000
1-11	66,000
1-12	72,000

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain documentation of the calculations using EIIP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4 or an alternative method or emission factor which becomes available, provided that the alternative method or emission factor is mutually agreeable to the Ohio EPA, the Akron Regional Air Quality Management District, and the Harbison-Walker Refractories Co. to prove that the hourly and annual emissions are not exceed for each operating scenario. Prior to changing or to adding an additional operating scenario (i.e., employing a new resin), the permittee shall perform the calculations for the VOC emissions to document that the allowable VOC emissions limitations are not exceeded.
4. The permittee shall maintain monthly records of the following information for emissions units P018, P019, and P020:
 - a. The production rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

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Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
20% opacity as a six-minute average

Applicable Compliance Method
OAC rule 3745-17-03(B)(1)
 - b. Emission Limitation
0.13 pound of PE per hour
0.0217 pound of PE per ton of product mixed

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Harbison-Walker Refractories Co

PTI Application: 16-02028

Issued

Facility ID: 1667090000

Emissions Unit ID: P018

Harbi**PTI A**Emissions Unit ID: **P018****Issued: To be entered upon final issuance**Applicable Compliance Method

Compliance shall be demonstrated by the monitoring and recording of the pressure drop across the baghouse as required by section A.III.1. Stack testing may be required in the future in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

c. Emission Limitation

0.78 ton of PE per year for emissions unit P018, P019, and P020, combined, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.0217 pound of PE per ton of product mixed by the maximum allowable rolling, 12-month production rate (72,000 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

d. Emission Limitation

0.5 pound of VOC per hour
2.19 tons of VOC per year

Applicable Compliance Method

Based on the information provided in the Permit to Install application and using EIIP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4, the annual and hourly VOC emission limits are not exceed.

VI. Miscellaneous Requirements

None

Harbi
PTI A

Emissions Unit ID: **P018**

Issued: **To be entered upon final issuance**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P018 - Eirich DE-22 mixer - AMC Mixer #1 with a baghouse as control.	None	See B.III.1 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P018) was evaluated based on the actual materials (typically resins) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol

TLV (mg/m3): 262

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Maximum Hourly Emission Rate (lbs/hr): 0.663*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 48.58

MAGLC (ug/m3): 6238.1

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically resins), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted,

change in stack/exhaust parameters, etc.);

- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

*The maximum hourly emission rate is the combined emission rates from emissions units P018, P019, and P020.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Harbi
PTI A

Emissions Unit ID: P019

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11
P019 - Eirich DE-22 mixer - AMC Mixer #2 with a baghouse as control.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(2)
	OAC rule 3745-31-05(D)	
	OAC rule 3745-17-07	

Harbi
PTI A

Emissions Unit ID: P019

Issued: To be entered upon final issuance

Applicable Emissions
Limitations/Control
Measures

0.13 pound of particulate emissions* (PE) per hour (See A.I.2.a below.) and 0.0217 pound of PE per ton of product mixed

*The particulate emissions are considered to be PM-10.

0.5 pound of volatile organic compounds (VOC) per hour

2.19 tons of VOC per year

See A.I.2.b below.

0.78 ton of PE per year for emissions units P018, P019, and P020, combined, as a rolling 12-month summation

See A.II.2 below.

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

See A.I.2.c below.

See A.I.2.c below.

2. Additional Terms and Conditions

2.a Harbison-Walker Refractories Company has accepted this emissions limit which is more

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stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering PSD permitting.

- 2.b** All of the particulate emissions from this emissions unit shall be vented to the baghouse.
- 2.c** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
2. The maximum annual production rate for emissions units P018, P019, and P020 shall not exceed 72,000 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	6,000
1-2	12,000
1-3	18,000
1-4	24,000
1-5	30,000
1-6	36,000
1-7	42,000
1-8	48,000
1-9	54,000
1-10	60,000
1-11	66,000
1-12	72,000

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain documentation of the calculations using EIIP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4 or an alternative method or emission factor which becomes available, provided that the alternative method or emission factor is mutually agreeable to the Ohio EPA, the Akron Regional Air Quality Management District, and the Harbison-Walker Refractories Co. to prove that the hourly and annual emissions are not exceed for each operating scenario. Prior to changing or to adding an additional operating scenario (i.e., employing a new resin), the permittee shall perform the calculations for the VOC emissions to document that the allowable VOC emissions limitations are not exceeded.
4. The permittee shall maintain monthly records of the following information for emissions units P018, P019, and P020:
 - a. The production rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

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Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
20% opacity as a six-minute average

Applicable Compliance Method
OAC rule 3745-17-03(B)(1)
 - b. Emission Limitation
0.13 pound of PE per hour
0.0217 pound of PE per ton of product mixed

Applicable Compliance Method

Compliance shall be demonstrated by the monitoring and recording of the pressure drop across the baghouse as required by section A.III.1. Stack testing may be required in the future in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

c. Emission Limitation

0.78 ton of PE per year for emissions unit P018, P019, and P020, combined, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.0217 pound of PE per ton of product mixed by the maximum allowable rolling, 12-month production rate (72,000 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

d. Emission Limitation

0.5 pound of VOC per hour
 2.19 tons of VOC per year

Applicable Compliance Method

Based on the information provided in the Permit to Install application and using EIPP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4, the annual and hourly VOC emission limits are not exceed.

VI. Miscellaneous Requirements

None

Harbi
PTI A

Emissions Unit ID: P019

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P019 - Eirich DE-22 mixer - AMC Mixer #2 with a baghouse as control.	None	See B.III.1 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P019) was evaluated based on the actual materials (typically resins) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol

TLV (mg/m3): 262

Issued: To be entered upon final issuance

Maximum Hourly Emission Rate (lbs/hr): 0.663*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 48.58

MAGLC (ug/m3): 6238.1

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically resins), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted,

change in stack/exhaust parameters, etc.);

- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

*The maximum hourly emission rate is the combined emission rates from emissions units P018, P019, and P020.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Harbi

PTI A

Emissions Unit ID: P020

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11
P020 - Eirich DE-22 mixer - AMC Mixer #3 with a baghouse as control.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-21-07(G)(2)
	OAC rule 3745-31-05(D)	
	OAC rule 3745-17-07	

Harbi

PTI A

Emissions Unit ID: P020

Issued: To be entered upon final issuance

Applicable Emissions
Limitations/Control
Measures

0.13 pound of particulate emissions* (PE) per hour (See A.I.2.a below.) and 0.0217 pound of PE per ton of product mixed

*The particulate emissions are considered to be PM-10.

0.5 pound of volatile organic compounds (VOC) per hour

2.19 tons of VOC per year

See A.I.2.b below.

0.78 ton of PE per year for emissions units P018, P019, and P020, combined, as a rolling 12-month summation

See A.II.2 below.

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

See A.I.2.c below.

See A.I.2.c below.

2. Additional Terms and Conditions

2.a Harbison-Walker Refractories Company has accepted this emissions limit which is more

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stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering PSD permitting.

- 2.b** All of the particulate emissions from this emissions unit shall be vented to the baghouse.
- 2.c** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
2. The maximum annual production rate for emissions units P018, P019, and P020 shall not exceed 72,000 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	6,000
1-2	12,000
1-3	18,000
1-4	24,000
1-5	30,000
1-6	36,000
1-7	42,000
1-8	48,000
1-9	54,000
1-10	60,000
1-11	66,000
1-12	72,000

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain documentation of the calculations using EIIP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4 or an alternative method or emission factor which becomes available, provided that the alternative method or emission factor is mutually agreeable to the Ohio EPA, the Akron Regional Air Quality Management District, and the Harbison-Walker Refractories Co. to prove that the hourly and annual emissions are not exceeded for each operating scenario. Prior to changing or to adding an additional operating scenario (i.e., employing a new resin), the permittee shall perform the calculations for the VOC emissions to document that the allowable VOC emissions limitations are not exceeded.
4. The permittee shall maintain monthly records of the following information for emissions units P018, P019, and P020:
 - a. The production rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

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Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation
20% opacity as a six-minute average

Applicable Compliance Method
OAC rule 3745-17-03(B)(1)
 - b. Emission Limitation
0.13 pound of PE per hour
0.0217 pound of PE per ton of product mixed

Applicable Compliance Method

Compliance shall be demonstrated by the monitoring and recording of the pressure drop across the baghouse as required by section A.III.1. Stack testing may be required in the future in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

c. Emission Limitation

0.78 ton of PE per year for emissions unit P018, P019, and P020, combined, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.0217 pound of PE per ton of product mixed by the maximum allowable rolling, 12-month production rate (72,000 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

d. Emission Limitation

0.5 pound of VOC per hour
2.19 tons of VOC per year

Applicable Compliance Method

Based on the information provided in the Permit to Install application and using EIP Preferred and Alternative Methods for Estimating Air Emissions Volume II, Chapter 8, Section 4, the annual and hourly VOC emission limits are not exceed.

VI. Miscellaneous Requirements

None

Harbi

PTI A

Emissions Unit ID: P020

Issued: To be entered upon final issuance**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P020 - Eirich DE-22 mixer - AMC Mixer #3 with a baghouse as control.	None	See B.III.1 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P020) was evaluated based on the actual materials (typically resins) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol

TLV (mg/m3): 262

Issued: To be entered upon final issuance

Maximum Hourly Emission Rate (lbs/hr): 0.663*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 48.58

MAGLC (ug/m3): 6238.1

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically resins), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted,

change in stack/exhaust parameters, etc.);

- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

*The maximum hourly emission rate is the combined emission rates from emissions units P018, P019, and P020.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Harbi
PTI A

Emissions Unit ID: P021

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P021 - Minor Additive Batching and Conveying - bulk bag/tote can stations with enclosed screw feeders, sack breaking station, weigh hopper, and air transport system with a baghouse and three bin vent/dust filters as control.	OAC rule 3745-31-05(A)(3)	0.22 pound of particulate emissions* (PE) per hour and 0.0556 (See A.I.2.a below.) pound of PE per ton of product batched and conveyed *The particulate emissions are considered to be PM-10. See A.I.2.b below.
	OAC rule 3745-31-05(D)	0.40 ton of PE per year, as a rolling 12-month summation. See A.II.2 below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11	See A.I.2.c below.

2. Additional Terms and Conditions

- 2.a Harbison-Walker Refractories Company has accepted this emissions limit which is more

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stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering PSD permitting.

2.b All of the particulate emissions from this emissions unit shall be either vented to the baghouse or one of the bin vent/dust filters.

2.c The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
2. The maximum annual production rate for this emissions unit shall not exceed 14,400 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	1,200
1-2	2,400
1-3	3,600
1-4	4,800
1-5	6,000
1-6	7,200
1-7	8,400
1-8	9,600
1-9	10,800
1-10	12,000
1-11	13,200
1-12	14,400

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible particulate emissions from the three bin vent/dust filter outlets serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information:
 - a. The production rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

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2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the baghouse stack and/or the three bin vent/dust filter outlets serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation

20% opacity as a six-minute average

Applicable Compliance Method

OAC rule 3745-17-03(B)(1)
 - b. Emission Limitation

0.22 pound of PE per hour

Applicable Compliance Method

Either multiply the particulate emissions factor of 2.9E-5 pound of particulate emissions per ton material handled (US EPA FIRE 6.22 emission factor SCC 3-05-006-12) by the maximum hourly production rate times 4 transfer points or use OAC rule 3745-17-03(B)(10).
 - c. Emission Limitation

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0.0556 pound of PE per ton of product batched and conveyed

Applicable Compliance Method

Either multiply the particulate emissions factor of 2.9E-5 pound of particulate emissions per ton material handled (US EPA FIRE 6.22 emission factor SCC 3-05-006-12) by 4 transfer points or use OAC rule 3745-17-03(B)(10).

d. Emission Limitation

0.40 ton of PE per year, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.0556 pound of PE per ton of product batched and conveyed by the maximum allowable rolling, 12-month production rate (14,400 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P021

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P021 - Minor Additive Batching and Conveying - bulk bag/tote can stations with enclosed screw feeders, sack breaking station, weigh hopper, and air transport system with a baghouse and three bin vent/dust filters as control.	None	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

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None

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P022

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P022 - AMC Batching - batching car with a baghouse as control.	OAC rule 3745-31-05(A)(3)	0.13 pound of particulate emissions* (PE) per hour (See A.I.2.a below.) and 0.0087 pound of PE per ton of product batched * The particulate emissions are considered to be PM-10. See A.I.2.b below.
	OAC rule 3745-31-05(D)	0.25 ton of PE per year, as a rolling 12-month summation. See A.II.2 below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11	See A.I.2.c below.

2. Additional Terms and Conditions

- 2.a Harbison-Walker Refractories Company has accepted this emissions limit which is more stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering

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PSD permitting.

- 2.b** All of the particulate emissions from this emissions unit shall be vented to the baghouse.
- 2.c** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
- The maximum annual production rate for this emissions unit shall not exceed 57,600 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	4,800
1-2	9,600
1-3	14,400
1-4	19,200
1-5	24,000
1-6	28,800
1-7	33,600
1-8	38,400
1-9	43,200
1-10	48,000
1-11	52,800
1-12	57,600

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

- The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop

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across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall maintain monthly records of the following information:
 - a. The production rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports

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shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

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

- a. Emission Limitation

20% opacity as a six-minute average

Applicable Compliance Method

OAC rule 3745-17-03(B)(1)

- b. Emission Limitation

0.13 pound of PE per hour

0.0087 pound of PE per ton of product batched

Applicable Compliance Method

Compliance shall be demonstrated by the monitoring and recording of the pressure drop across the baghouse as required by section A.III.1. Stack testing may be required in the future in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

- c. Emission Limitation

0.25 ton of PE per year, as a rolling 12-month summation

Applicable Compliance Method

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Multiply the allowable particulate emissions factor of 0.0087 pound of PE per ton of product batched by the maximum allowable rolling, 12-month production rate (57,600 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P022 - AMC Batching - batching car with a baghouse as control.	None	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

None

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P023 - Curing Oven with a thermal incinerator as control.	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-31-05(D)

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OAC rule 3745-17-07(A)	Applicable Emissions <u>Limitations/Control Measures</u>	incinerator shall not exceed the following:
	1.25 pounds of PM-10 per hour including natural gas combustion emissions from the oven and the thermal incinerator (See A.I.2.a below.) and 0.1042 pound of PM-10 per ton of product cured	2.02 pounds of carbon monoxide (CO) per hour
OAC rule 3745-17-11	2.45 pounds of particulate emissions (PE) per hour including natural gas combustion emissions from the oven and the thermal incinerator (See A.I.2.a below.) and 0.2042 pound of PE per ton of product cured	8.85 tons of CO per year 0.01 pound of sulfur dioxide (SO ₂) per hour
	4.32 pounds of nitrogen oxides (NO _x) per hour including natural gas combustion emissions from the oven and the thermal incinerator	0.04 ton of SO ₂ per year 3.75 tons of PM-10 per year, as a rolling 12-month summation 7.35 tons of PE per year, as a rolling 12-month summation
	18.92 tons of NO _x per year including natural gas combustion emissions from the oven and the thermal incinerator	See A.II.2 below. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	2.50 pounds of volatile organic compounds (VOC) per hour including natural gas combustion emissions from the oven and the thermal incinerator	See A.I.2.b below.
	10.95 tons of VOC per year including natural gas combustion emissions from the oven and the thermal incinerator	
	Natural gas combustion emissions from the oven and the thermal	

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** Harbison-Walker Refractories Company has accepted this emissions limit which is more stringent than OAC rule 3745-17-11 as federally enforceable in order to avoid triggering PSD permitting.
- 2.b** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

II. Operational Restrictions

1. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The maximum annual production rate for this emissions unit shall not exceed 72,000 tons, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	6,000
1-2	12,000
1-3	18,000
1-4	24,000
1-5	30,000
1-6	36,000
1-7	42,000
1-8	48,000
1-9	54,000
1-10	60,000
1-11	66,000
1-12	72,000

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
 3. The permittee shall maintain monthly records of the following information:
 - a. The production rate for each month.

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- b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days after the startup of this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and VOC.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A and for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 4. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
 5. Compliance with the emission limitation(s) in Section A.I of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation

20% opacity as a six-minute average

Applicable Compliance Method

OAC rule 3745-17-03(B)(1)
 - b. Emission Limitation

2.45 pounds of PE per hour
0.2042 pound of PE per ton of product cured

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Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by performance testing as described in sections A.V.1 through A.V.4 above.

c. Emission Limitation

1.25 pounds of PM-10 per hour

0.1042 pound of PM-10 per ton of product cured

Applicable Compliance Method

Stack testing may be required in the future in accordance with approved US EPA test method(s) and procedures.

Issued: To be entered upon final issuanced. Emission Limitation

3.75 tons of PM-10 per year, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.1042 pound of PM-10 per ton of product cured by the maximum allowable rolling, 12-month production rate (72,000 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

e. Emission Limitation

7.35 tons of PE per year, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.2042 pound of PE per ton of product batched by the maximum allowable rolling, 12-month production rate (72,000 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

f. Emission Limitation

2.50 pounds of VOC per hour
10.95 tons of VOC per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by performance testing as described in sections A.V.1 through A.V.4 above. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by 8760 hrs/yr, and then dividing by 2000 lbs/ton.

g. Emission Limitation

4.32 pounds of NOx per hour

Applicable Compliance Method

Multiply the nitrogen oxides emissions factor of 0.16 pound of nitrogen oxides emissions per ton feed material fed (US EPA FIRE 6.22 emission factor SCC 3-05-005-04) by the

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maximum hourly production rate plus multiply the nitrogen oxides emissions factor of 100 pounds of nitrogen oxides per million standard cubic feet of natural gas fired (AP-42 Table 1.4-1 dated 7/98) by the maximum hourly amount natural gas fired.

h. Emission Limitation

18.92 tons of NO_x per year

Applicable Compliance Method

Multiply the resulting hourly emissions rate from section A.V.5.g above by 8760 hours per year, and then divided by 2000.

i. Emission Limitation

2.02 pounds of CO per hour

Applicable Compliance Method

Multiply the carbon monoxide emissions factor of 84 pounds of carbon monoxide per million standard cubic feet of natural gas (AP-42 Table 1.4-1 dated 7-98) fired by the maximum hourly amount natural gas fired.

j. Emission Limitation

8.85 tons of CO per year

Applicable Compliance Method

Multiply the resulting hourly emissions rate from section A.V.5.i above by 8760 hours per year, and then divided by 2000.

k. Emission Limitation

0.01 pound of SO₂ per hour

Applicable Compliance Method

Multiply the sulfur dioxide emissions factor of 0.6 pounds of sulfur dioxide per million standard cubic feet of natural gas fired (AP-42 Table 1.4-2 dated 7-98) by the maximum hourly amount natural gas fired.

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1. Emission Limitation

0.04 ton of SO₂ per year

Applicable Compliance Method

Multiply the resulting hourly emissions rate in section A.V.5.k above by 8760 hours per year, and then divided by 2000.

VI. Miscellaneous Requirements

None

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P023 - Curing Oven with a thermal incinerator as control.	None	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

None

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Emissions Unit ID: P904

Issued: To be entered upon final issuance**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P904 - Screening, Conveying, and Storage - belt conveyor, multi-deck screen, consigner, and storage bins with a baghouse and three bin vent/dust filters as control.	OAC rule 3745-31-05(A)(3)	1.88 pounds of particulate emissions * (PE) per hour and 0.1253 pound of PE per ton material handled from the baghouse stack 0.23 pound of PE* per hour (See A.I.2.b below.) and 0.0575 pound of PE per ton of material handled from the fines vents
	OAC rule 3745-31-05(D)	*The particulate emissions are considered to be PM-10 4.01 tons of PE per year, as a rolling 12-month summation See A.II.2 below.
	OAC rule 3745-17-07(A)	See A.I.2.c below.
	OAC rule 3745-17-11	See A.I.2.c below.
	40 CFR Part 60, subpart OOO	The building enclosing the affected facility or facilities (See A.I.2.d below.) shall comply with the following emission limits:

a. No permittee shall cause to be discharged into the atmosphere from any building enclosing transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in Section 60.671 of 40 CFR Part 60, subpart OOO.

b. No permittee shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits below:

1. particulate matter in excess of 0.05 g/dscm; and
2. exhibit greater than 7 percent opacity.

2. Additional Terms and Conditions

- 2.a** This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08 do not apply to this emissions unit.
- 2.b** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.
- 2.c** The emissions limit based on this applicable rule is less stringent than the limit established pursuant to 40 CFR Part 60, subpart OOO and OAC rule 3745-31-05.
- 2.d** An affected facility is any piece of equipment that is designated in Section 60.670(a)(1) of 40 CFR Part 60, subpart OOO as subject to the regulation (i.e., each crusher, grinding

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mill, screening operation etc.).

- 2.e** Compliance with the vent emission limitations shall be achieved on and after the date on which the performance test required to be conducted by Section 60.8 of 40 CFR Part 60, subpart A is completed.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation or the range established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. The maximum annual production rates for this emissions unit shall not exceed 57,600 tons for the pre-crushed raw material and 13,800 tons for the fines, based upon a rolling, 12-month summation of the production rates.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Production for Pre-Crushed Raw Material</u>	<u>Maximum Allowable Cumulative Production for Fines</u>
1	4,800	1,150
1-2	9,600	2,300
1-3	14,400	3,450
1-4	19,200	4,600
1-5	24,000	5,750
1-6	28,800	6,900
1-7	33,600	8,050
1-8	38,400	9,200
1-9	43,200	10,350
1-10	48,000	11,500
1-11	52,800	12,650
1-12	57,600	13,800

After the first 12 calendar months of operation, compliance with the annual production rate limitations shall be based upon a rolling, 12-month summation of the production rates.

III. Monitoring and/or Recordkeeping Requirements

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1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, 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.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any building opening serving this emissions unit and for any visible particulate emissions from any vent serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

For the building openings:

- a. the color of the emissions;
- b. the cause of the abnormal emissions;
- c. the total duration of any visible emission incident; and
- d. any corrective actions taken to eliminate the visible emissions.

For the vents (the baghouse stack and the powered wall and ceiling fans):

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information:

- a. The pre-crushed raw material and fines production rates for each month.
- b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the pre-crushed raw material and fines production rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative pre-crushed raw material and fines production rates for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from any vent and/or any building opening serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the emission standards in Section A.I.1 of these terms and conditions, including reports of opacity observations made using Method 9 of 40 CFR Part 60, Appendix A to demonstrate compliance with 7 percent opacity and reports of observations using Method 22 of 40 CFR Part 60, Appendix A to demonstrate compliance with no visible fugitive emissions to the atmosphere.
4. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the permittee to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels.
6. The deviation reports shall be submitted in accordance with the requirements specified in Part I -

Issued: To be entered upon final issuance

General Term and Condition A.1.c.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates, the stack emission limit from the baghouse stack (i.e., 0.05 g/dscm), the baghouse stack and vent (i.e., powered wall or ceiling fans) opacity emission limitations, and the visible fugitive emission limitation for the building enclosure.
 - c. The following test method(s) shall be employed to demonstrate compliance:
 - i. for the baghouse stack allowable mass emission rates: for particulates, Methods 1-4 and 5 or 17 of 40 CFR Part 60, Appendix A, with the following additions:
 - aa. The sample volume shall be at least 1.70 dscm (60 dscf).
 - ab. For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters.
 - ac. If the gas stream is above ambient temperature, the sample probe and filter may be operated at a temperature high enough, but no higher than 121 degrees Celsius (250 degree Fahrenheit), to prevent water condensation on the filter.
 - ii. for the baghouse stack and vent opacity emission limitation: for particulates, Method 9 of 40 CFR Part 60, Appendix A and the procedures in Section 60.11 of 40 CFR Part 60, subpart A. If the stack test for the vent opacity emission limitation exceeds the allowable opacity emission limitation, then within 90 days from which the test results are received at Akron Regional Air Quality Management District, the permittee shall perform the emission testing as described in section A.V.1.C.i above for each vent that exceeds the allowable opacity emission limitation.
 - iii. for the visible fugitive emission limitation from the building enclosure: for

Emissions Unit ID: P904

particulates, Method 22 of 40 CFR Part 60, Appendix A with the following additions:

- aa. The performance test shall be conducted while all affected facilities inside the building are operating.
 - ab. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 4. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
 5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation

No visible fugitive emission

Issued: To be entered upon final issuanceApplicable Compliance Method

Compliance shall be demonstrated using US EPA Method 22 of 40 CFR Part 60, Appendix A as required in sections A.V.1 through A.V.4 of these terms and conditions

b. Emission Limitation

0.05 g/dscm for the baghouse stack emissions

Applicable Compliance Method

Compliance shall be demonstrated using US EPA Reference Methods 1-5 of 40 CFR Part 60, Appendix A as required in sections A.V.1 through A.V.4 of these terms and conditions.

c. Emission Limitation

7% opacity for the vents and the baghouse stack emissions

Applicable Compliance Method

Compliance shall be demonstrated using US EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures in Section 60.11 of 40 CFR Part 60, subpart A as required in sections A.V.1 through A.V.4 of these terms and conditions.

d. Emission Limitation

0.05 g/dscm for the vent emissions

Applicable Compliance Method

If required in section A.V.1.c.ii above, compliance shall be demonstrated using US EPA Reference Methods 1-5 of 40 CFR Part 60, Appendix A as required in sections A.V.1 through A.V.4 of these terms and conditions.

e. Emission Limitation

1.88 pounds of PE per hour and 0.1253 pound of PE per ton material handled from the baghouse stack

Harbison-Walker Refractories Co**PTI Application: 16-03038****Issued****Facility ID: 1667090000**

Emissions Unit ID: P904

Applicable Compliance Method

Compliance shall be demonstrated using US EPA Reference Methods 1-5 of 40 CFR Part 60, Appendix A as required in sections A.V.1 through A.V.4 of these terms and conditions.

f. Emission Limitation

0.23 pound of PE per hour and 0.0575 pound of PE per ton of material handled from the fines vents

Applicable Compliance Method

Stack testing may be required in the future in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

g. Emission Limitation

4.01 tons of PE per year, as a rolling 12-month summation

Applicable Compliance Method

Multiply the allowable particulate emissions factor of 0.1253 pound of PE per ton of material handled by the maximum allowable rolling, 12-month production rate (57,600 tons per year, as a rolling 12-month summation) plus multiply the allowable particulate emissions factor of 0.0575 pound of PE per ton of material handled by the maximum allowable rolling, 12-month production rate (13,800 tons per year, as a rolling 12-month summation), then divided by 2000 pounds per ton.

VI. Miscellaneous Requirements

None

Harbi

PTI A

Emissions Unit ID: P904

Issued: To be entered upon final issuance**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P904 - Screening, Conveying, and Storage - belt conveyor, multi-deck screen, consigner, and storage bins with a baghouse and three bin vent/dust filters as control.	None	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

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038

Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing. CITY/TWP Windham

Emissions Unit ID: P904

VI. Miscellaneous Requirements

None

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P018

EMISSIONS UNIT DESCRIPTION Eirich DE-22 mixer - AMC Mixer #1.

DATE INSTALLED not begun

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			0.78	0.13 lb/hr and 0.0217 lb/ton	0.78 ton per year as a rolling 12-month summation for P018, P019, and P020
PM ₁₀					
Sulfur Dioxide					
Organic Compounds			0.58	0.5 lb/hr	2.19
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?

baghouse

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

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*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: methanol

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038 Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION	Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.	CITY/TWP	Windham
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NEW SC

PTI Num

FACILITY

Emissions Unit ID: P904

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.

CITY/TWP Windham

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P019

EMISSIONS UNIT DESCRIPTION Eirich DE-22 mixer - AMC Mixer #2.

DATE INSTALLED not begun

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			0.78	0.13 lb/hr and 0.0217 lb/ton	0.78 ton per year as a rolling 12-month summation for P018, P019, and P020
PM ₁₀					
Sulfur Dioxide					
Organic Compounds			0.58	0.5 lb/hr	2.19
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?

Baghouse

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: methanol

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038

Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials CITY/TWP Windham

Emissions Unit ID: P904

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P020

EMISSIONS UNIT DESCRIPTION Eirich DE-22 mixer - AMC Mixer #3.

DATE INSTALLED not begun

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			0.78	0.13 lb/hr and 0.0217 lb/ton	0.78 ton per year as a rolling 12-month summation for P018, P019, and P020
PM ₁₀					
Sulfur Dioxide					
Organic Compounds			0.58	0.5 lb/hr	2.19
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?

Baghouse

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: methanol

NEW SC

PTI Num

FACILITY

Emissions Unit ID: P904

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.

CITY/TWP Windham

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P021

EMISSIONS UNIT DESCRIPTION Minor Additive Batching and Conveying - bulk bag/tote can stations with enclosed screw feeders, weigh hopper, and air transport system.

DATE INSTALLED not begun

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			0.4	0.22 lb/hr and 0.0556 lb/ton	0.4 ton per ton as a rolling 12-month summation
PM ₁₀					
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?

Baghouse and three bin vent/dust filters

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 containinants 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:

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038 Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials CITY/TWP Windham

Emissions Unit ID: P904

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P022

EMISSIONS UNIT DESCRIPTION AMC Batching - batching car.

DATE INSTALLED not begun

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			0.25	0.13 lb/hr and 0.0087 lb/ton	0.25 ton per year as a rolling 12-month summation
PM ₁₀					
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?

Baghouse

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: _____

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038

Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials CITY/TWP Windham

Emissions Unit ID: P904

SIC CODE 3297 SCC CODE 3-05-005-04 EMISSIONS UNIT ID P023

EMISSIONS UNIT DESCRIPTION Curing Oven.

DATE INSTALLED not begun

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			7.35	2.45 lbs/hr and 0.2042 lb/ton	7.35 tons per year as a rolling 12-month summation
PM ₁₀			3.75	1.25 lbs/hr and 0.1042 lb/ton	3.75 tons per year as a rolling 12-month summation
Sulfur Dioxide			0.02	0.01 lb/hr	0.04
Organic Compounds			2.92	2.50 lbs/hr	10.95
Nitrogen Oxides			8.64	4.32 lbs/hr	18.92
Carbon Monoxide			4.04	2.02 lbs/hr	8.85
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?

Thermal Incinerator

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: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: P904

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.

CITY/TWP Windham

SIC CODE 3297 SCC CODE 3-05-005-99 EMISSIONS UNIT ID P904

EMISSIONS UNIT DESCRIPTION Screening, Conveying, and Storage - belt conveyor, multi-deck screen, consigner, and storage bins.

DATE INSTALLED not begun

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			4.01	1.88 lbs/hr for baghouse and 0.23 lb/hr for fines vents	4.01 ton per year as a rolling 12-month summation
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 60, NESHAP? PSD? OFFSET POLICY? Subpart OOO

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

Baghouse and three bin vent/dust filters

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 containinants 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:

- Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section

NEW SOURCE REVIEW FORM B

PTI Number: 16-02038

Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials CITY/TWP Windham

Emissions Unit ID: P904

must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

NONE

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**
 Permit To Install **ENTER PTI NUMBER HERE**

A. Source Description

This permit to install is for the installation of several emissions units to manufacturer cured resin bonded alumina/magnesite carbon refractory shapes. The new emissions units consist of three mixers (P018 - P020), minor additive batching and conveying (P021), batching of major materials (P022), cure oven (P023), and screening, conveying, and storage (P904).

B. Facility Emissions and Attainment Status

Based on the actual emissions, the facility is a minor source. These new installations have a potential to emit of 439 tons of particulate emissions per year. Portage county is attainment for particulates.

C. Source Emissions

The facility has requested more stringent hourly emission limitations to avoid PSD permitting for particulate emissions. Also, to avoid state modeling requirements the facility has requested production limitations on each of the emissions units. With the production limitations and the more stringent hourly emission limitations, the potential to emit for PM-10 is below 10 tons per year.

D. Conclusion

The new installation will not be considered major for PSD permitting and no modeling of the particulate

8 NEW SOURCE REVIEW FORM B

PTI Number: 16-02038

Facility ID: 1667090000

FACILITY NAME Harbison-Walker Refractories Co

FACILITY DESCRIPTION Cured Resin Bonded Alumina - materials CITY/TWP Windham

Emissions Unit ID: P904

emissions will be required.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	12.79
PM-10	9.19
NOx	18.92
VOC	17.52
CO	8.85
SO2	0.04

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

88 NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Cured Resin Bonded Alumina - materials screening, conveying, storage, batching, mixing and curing.

Emissions Unit ID: P904 _____
CITY/TWP Windham
