



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/19/2012

Mr. Brent Bunker
Harbison-Walker Refractories Co.
East Center Street / Route 303
P. O. Box 397
Windham, OH 44288

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1667090000
Permit Number: P0107438
Permit Type: Renewal
County: Portage

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of 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 permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Record Courier. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
ARAQMD; Pennsylvania; West Virginia; Canada



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Harbison-Walker Refractories Company, located at 9686 E. Center Street, Windham, Portage County, Ohio 44288, produces phenol resin-bonded refractory shapes. Only two emissions units at this facility employ emissions control, namely emissions units P016 (FECO Baking Oven) and P023 (BRAM Curing Oven). Each of these two emissions units use a thermal oxidizer to control emissions of volatile organic compounds (VOC) and organic hazardous air pollutants (HAP). Per the application, facility emissions of organic HAP are contributed by the FECO Baking Oven, the BRAM Curing Oven and emissions units P018, P019 and P020 (BRAM Mixers #1, #2 and #3). The FECO Baking Oven and the BRAM Curing Oven are the major organic HAP emission contributors, while the BRAM Mixers #1, #2 and #3 are minor contributors. Phenol is the highest-emitted individual HAP from the facility. Organic HAP emissions are the majority fraction of the VOC emissions from the facility. Facility inorganic HAP emissions include emissions of hydrogen fluoride and hydrogen chloride from emissions unit P014 (tunnel kiln).

3. Facility Emissions and Attainment Status:

Per the application, uncontrolled and unrestricted (8760 hours per year) potential facility emissions of VOC, individual HAP, combined organic HAP, and combined organic/inorganic HAP are, respectively, 73.73, 41.97, 53.61 and 65.32 tons per year. Except for HAP emissions, this facility is a natural minor source of all other Title V criteria pollutants. The facility submitted an application for a federally enforceable permit-to-install and operate (FEPTIO) to leave the Title V program. Federally enforceable requirements and restrictions will limit potential emissions of individual and combined HAP to less than 10 tons and 25 tons per year, respectively, and thus will keep the facility from the requirements of the Title V program. Portage County is attainment for PM10, sulfur dioxide, carbon monoxide, lead, ozone and oxides of nitrogen. Portage County is in a non-attainment area for PM-2.5.

4. Source Emissions:

Harbison-Walker Refractories Company, Windham, OH has requested federally enforceable requirements on the use of thermal oxidizer control to destroy VOC emissions (and organic HAP as a direct consequence stated above) from the FECO Baking Oven and the BRAM Curing Oven and also a federally enforceable annual production restriction of 72,000 tons of cured refractory shapes for the BRAM Curing Oven. With the proposed required use of thermal oxidizer control and the production restriction, as specified above, annual potential HAP emissions will be limited to 9.46 tons per year for the highest-emitted individual HAP (phenol), and 23.8 tons per year for any combination of two or more HAP, based upon a rolling, 12-month period.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Permit Strategy Write-Up

Permit Number: P0107438

Facility ID: 1667090000

Harbison-Walker Refractories Company

5. Conclusion:

This facility will have federally enforceable requirements and restrictions that will keep permit allowable emissions below all applicable Title V emission threshold levels.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	13.5
Individual HAP (organic)	9.46
Combined HAP (organic and inorganic)	23.8

PUBLIC NOTICE

6/19/2012 Issuance of Draft Air Pollution Permit-To-Install and Operate

Harbison-Walker Refractories Co.
East Center Street / Route 303, P. O. Box 397
Windham, OH 44288
Portage County
FACILITY DESC.: Nonclay Refractory Manufacturing
PERMIT #: P0107438
PERMIT TYPE: Renewal
PERMIT DESC: Renewing air permit with a FEPTIO to leave the Title V program.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitonline.aspx> by entering the permit # or: Russell Risley, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308. Ph: (330)375-2480



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Harbison-Walker Refractories Co.**

Facility ID:	1667090000
Permit Number:	P0107438
Permit Type:	Renewal
Issued:	6/19/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
Harbison-Walker Refractories Co.

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Authorization

Facility ID: 1667090000

Application Number(s): A0041013

Permit Number: P0107438

Permit Description: Renewing air permit with a FEPTIO to leave the Title V program.

Permit Type: Renewal

Permit Fee: \$0.00 *DO NOT send payment at this time, subject to change before final issuance*

Issue Date: 6/19/2012

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Harbison-Walker Refractories Co.
East Center Street / Route 303
P. O. Box 397
Windham, OH 44288

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0107438

Permit Description: Renewing air permit with a FEPTIO to leave the Title V program.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

- Emissions Unit ID: P014**
Company Equipment ID: Tunnel Kiln
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P016**
Company Equipment ID: FECO Baking Oven
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P017**
Company Equipment ID: Rotary Dryer
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P023**
Company Equipment ID: BRAM Curing Oven
Superseded Permit Number: 16-02038
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P902**
Company Equipment ID: Barmac Crusher
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P904**
Company Equipment ID: BRAM Screens & Bins
Superseded Permit Number: 16-02038
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P912**
Company Equipment ID: BB Grind & Screen
Superseded Permit Number: 16-02540
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P918**
Company Equipment ID: Batt Brick Crushing
Superseded Permit Number: 16-02540
General Permit Category and Type: Not Applicable

Group Name: BRAM Mixers

Emissions Unit ID:	P018
Company Equipment ID:	BRAM Mixer No. 1
Superseded Permit Number:	16-02038
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	BRAM Mixer No. 2
Superseded Permit Number:	16-02038
General Permit Category and Type:	Not Applicable

Draft Permit-to-Install and Operate

Harbison-Walker Refractories Co.

Permit Number: P0107438

Facility ID: 1667090000

Effective Date: To be entered upon final issuance

Emissions Unit ID:	P020
Company Equipment ID:	BRAM Mixer No. 3
Superseded Permit Number:	16-02038
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Akron Regional Air Quality Management District in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

Draft Permit-to-Install and Operate

Harbison-Walker Refractories Co.

Permit Number: P0107438

Facility ID: 1667090000

Effective Date: To be entered upon final issuance

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions

1. P014, Tunnel Kiln

Operations, Property and/or Equipment Description:

Firing refractory shapes. Continuous operation, maximum production capacity 4.95 tons per hour. Natural gas-fired, rated heat input capacity 40.2 million Btu per hour. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 16-00214)	The permittee shall comply with all the terms and conditions and all the applicable requirements in this permit.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Harbison-Walker Refractories Co.

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c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	Stack PE shall not exceed 12.0 pounds per hour (from Table I, and a process weight at maximum production of 4.95 tons per hour; Fig II is not applicable because the uncontrolled mass rate of emission cannot be ascertained.)
f.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.

(2) Additional Terms and Conditions

- a. The above 12.0 pounds per hour PE limit from OAC rule 3745-17-11(B) is greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with this emission limitation.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in fuel burned, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;
 - c. whether the emissions are representative of normal operations;
 - d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - e. the total duration of any visible emission incident; and
 - f. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall also identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

Draft Permit-to-Install and Operate

Harbison-Walker Refractories Co.

Permit Number: P0107438

Facility ID: 1667090000

Effective Date: To be entered upon final issuance

- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

b. Emission Limitation:

Stack PE shall not exceed 12.0 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

g) Miscellaneous Requirements

- (1) None.

2. P016, FECO Baking Oven

Operations, Property and/or Equipment Description:

Baking refractory shapes. Batch operation, maximum production capacity 1.017 tons per hour. Natural gas-fired, rated heat input capacity 1.7 million Btu per hour. Per the application, the operation of this emissions unit will not employ production restrictions, but will employ a thermal oxidizer (afterburner) to destroy emissions of volatile organic compounds (VOC). Organic hazardous air pollutants (HAP), with phenol as the chief constituent, are included in the VOC emissions from this emissions unit and will likewise be proportionately destroyed by the thermal oxidizer. The operation of this emissions unit as described above will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)(g), b)(2)(c), c)(1), d)(2), d)(3), d)(4), e)(3), and f)(1)(c).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions from the thermal oxidizer stack shall not exceed the following limits: Volatile organic compounds (VOC*): 0.169 pound per hour; Nitrogen oxides (NOx): 1.47 pounds per hour and 6.44 tons per year; and Carbon monoxide (CO): 0.96 pound per hour and 4.20 tons per year.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements established pursuant to this rule also include the requirements of OAC rules 3745-17-07(A), 3745-17-11(B), 3745-18-06(A) and 3745-31-05(D).
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	Stack PE shall not exceed 4.15 pounds per hour (from Table I, and a process weight at maximum production of 1.017 tons per hour; Fig II is not applicable because the uncontrolled mass rate of emission cannot be ascertained.)
f.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.
g.	OAC rule 3745-31-05(D) (to avoid Title V requirements)	<p>The emissions of VOCs* from this emissions unit shall not exceed 0.74 ton per year, based upon a rolling, 12-month summation of the monthly emission rates.</p> <p>In order to comply with the above VOC emissions limits established pursuant to OAC rules 3745-31-05(A)(3) and 3745-31-05(D) and maintain this facility as a minor source of hazardous air pollutants</p>

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		(HAP), the permittee shall continuously operate and maintain a thermal oxidizer, a capture (collection) system and any other equipment necessary, per the requirements of this permit and in accordance with the manufacturer's recommendations, instructions, and operating manual(s) to the extent possible with good engineering design and implementation. This is a synthetic minor emissions unit condition and shall be a federally enforceable requirement.

(2) Additional Terms and Conditions

- a. The above 0.169 pound per hour and 0.74 ton per year VOC emission limitations and the 4.15 pounds per hour PE limitation are equal to or greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in fuel burned, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.
- c. *All the VOCs emitted in this emissions unit are organic HAPs.

c) Operational Restrictions

- (1) All of the VOC emissions from this emissions unit shall be vented to the/a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
- b. the color of the emissions;
- c. whether the emissions are representative of normal operations;
- d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- e. the total duration of any visible emission incident; and
- f. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the combustion temperature on continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained at the facility for a period of no less than 3 years.
- (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer during any period of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;

- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall also identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(1) above:

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- a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the thermal oxidizer during the 12-month reporting period for this/these emissions unit(s):
- a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
 - c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (4) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:
Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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

b. Emission Limitation:

Stack PE shall not exceed 4.15 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

c. Emission Limitations:

Stack VOC emissions shall not exceed 0.169 pound per hour and 0.74 ton per year.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly emission limitation based on stack testing conducted in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 25 or Method 25A.

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (The annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000.)

g) Miscellaneous Requirements

(1) None.

3. P017, Rotary Dryer

Operations, Property and/or Equipment Description:

Raw materials transfer and drying. Front end loader, hopper, belt conveyers, rotary dryer and elevator to storage bays. Continuous operation, maximum production capacity 27.0 tons per hour. Natural gas-fired, rated heat input capacity 4.35 million Btu per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 16-01914)	Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 3.25 pounds per hour and 14.2 tons per year. Particulate matter 10 microns in diameter (PM-10) emissions from the stack serving this emissions unit shall not exceed 1.6 pounds per hour and 7.0 tons per year. Nitrogen oxides (NOx) emissions from the stack serving this emissions unit shall not

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		exceed 0.44 pound per hour and 1.9 tons per year. The requirements established pursuant to this rule also include the requirements of OAC rules 3745-17-07(A) and 3745-18-06(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.

(2) Additional Terms and Conditions

- a. The emissions limits: 3.25 pounds per hour and 14.2 tons per year PE, 1.6 pounds per hour and 7.0 tons per year PM-10, and 0.44 pound per hour and 1.9 tons per year NOx established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.

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- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in fuel burned, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
- b. the color of the emissions;
- c. whether the emissions are representative of normal operations;
- d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- e. the total duration of any visible emission incident; and
- f. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

- (2) The permittee shall also identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

- b. Emission Limitations:

Stack PE shall not exceed 3.25 pounds per hour and 14.2 tons per year.

Applicable Compliance Method:

If required, compliance shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

- c. Emission Limitation:

Stack PM-10 emissions shall not exceed 1.6 pounds per hour and 7.0 tons per year.

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Applicable Compliance Method:

If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 51, Appendix M, Method 201 or Method 201A.

As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

d. Emission Limitation:

Stack NO_x emissions shall not exceed 0.44 pound per hour and 1.9 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 7E.

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000.)

g) Miscellaneous Requirements

(1) None.

4. P023, BRAM Curing Oven

Operations, Property and/or Equipment Description:

Curing refractory shapes. Continuous operation, maximum production capacity 12.0 tons per hour. Natural gas-fired, rated heat input capacity 9.0 million Btu per hour. Per the application, the operation of this emissions unit will employ both a production restriction and a thermal oxidizer (afterburner) to destroy emissions of volatile organic compounds (VOC). Organic hazardous air pollutants (HAP), with phenol as the chief constituent, are included in the VOC emissions from this emissions unit and will likewise be proportionately destroyed by the thermal oxidizer. The operation of this emissions unit as described above will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)(g), b)(2)(c), c)(1), c)(2), d)(2), d)(3), d)(4), d)(5), e)(3), e)(4) and f)(1)(c), f)(1)(d).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions from the thermal oxidizer stack shall not exceed the following limits: Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 2.45 pounds per hour and 10.7 tons per year.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Particulate matter 10 microns in diameter (PM-10): 1.37 pounds per hour and 6.00 tons per year;</p> <p>Volatile organic compounds (VOC*): 1.54 pounds per hour;</p> <p>Nitrogen oxides (NOx): 4.12 pounds per hour and 18.0 tons per year; and</p> <p>Carbon monoxide (CO): 2.61 pounds per hour and 11.4 tons per year.</p> <p>The requirements established pursuant to this rule also include the requirements of OAC rules 3745-17-07(A), 3745-18-06(A) and 3745-31-05(D).</p>
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-31-05(D) (to avoid Title V requirements)	<p>The emissions of VOC* from this emissions unit shall not exceed 4.62 tons per year, based upon a rolling, 12-month summation of the monthly emissions.</p> <p>In order to comply with the annual VOC emissions limit established pursuant to OAC rule 3745-31-05(D) and maintain this facility as a minor source of hazardous air pollutants (HAP), the permittee shall employ the production restrictions contained in term c)(2) below and continuously operate and maintain a thermal oxidizer, a capture (collection) system and any other equipment necessary, per the requirements of this permit and in accordance with the manufacturer's recommendations, instructions, and operating manual(s) to the extent possible with good engineering design and implementation. This is a synthetic minor emissions unit condition and shall be a federally enforceable requirement.</p>

(2) Additional Terms and Conditions

- a. The emissions limits: 2.45 pounds per hour and 10.7 tons per year PE, 1.37 pounds per hour and 6.00 tons per year PM-10, 1.54 pounds per hour VOC, 4.12 pounds per hour and 18.0 tons per year NOx, and 2.61 pounds per hour and 11.4 tons per year CO established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in fuel burned, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.
- c. All the VOCs emitted in this emissions unit are organic HAPs.

c) Operational Restrictions

- (1) All of the VOC emissions from this emissions unit shall be vented to the/a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.
- (2) The maximum annual production rate for this emissions unit shall not exceed 72,000 tons per year, based upon a rolling, 12-month summation of the production rates.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;
 - c. whether the emissions are representative of normal operations;
 - d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - e. the total duration of any visible emission incident; and
 - f. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the combustion temperature on continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained at the facility for a period of no less than 3 years.

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- (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer during any period of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled

pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (5) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the production rate for each month, in tons;
 - b. the rolling, 12-month summation of the production rates, in tons; and
 - c. the calculated monthly VOC emissions and the rolling, 12-month summation of the monthly VOC emissions, in tons.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall also identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month limitation of the production rates;
 - ii. all exceedances of the rolling, 12-month emission limitation for VOCs;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall identify in the annual PER the following information concerning the operations of the thermal oxidizer during the 12-month reporting period for this/these emissions unit(s):
- a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
 - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (5) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:
Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

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

b. Emission Limitations:

Stack PE shall not exceed 2.45 pounds per hour and 10.7 tons per year.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

c. Emission Limitation:

Stack VOC emissions shall not exceed 1.54 pounds per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly y VOC emission limitation in accordance with the results of emissions testing conducted in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 25 or Method 25A.

d. Emission Limitation:

The emissions of VOC from this emissions unit shall not exceed 4.62 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with this emissions limit shall be based upon the monitoring and record keeping requirements of term d)(4) above.

e. Emission Limitations:

Stack PM-10 emissions shall not exceed 1.37 pounds per hour and 6.00 tons per year.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 51, Appendix M, Method 201 or Method 201A.

As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

f. Emission Limitations:

Stack NO_x emissions shall not exceed 4.12 pounds per hour and 18.0 tons per year.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 7E.

As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

f. Emission Limitations:

Stack CO emissions shall not exceed 2.61 pounds per hour and 11.4 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 10.

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000.)

g) Miscellaneous Requirements

(1) None.

5. P902, Barmac Crusher

Operations, Property and/or Equipment Description:

Raw materials crushing and conveying system. Elevators, hopper, belt conveyers, crusher, screen and consigner to bins. Continuous operation, maximum production capacity 35.0 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 1.91 pounds per hour and 8.37 tons per year. The requirements established pursuant to this rule also include the requirements of OAC rule 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The 1.91 pounds per hour and 8.37 tons per year PE limits established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

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

b. Emission Limitations:

Stack PE shall not exceed 1.91 pounds per hour and 8.37 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000).

g) Miscellaneous Requirements

(1) None.

6. P904, BRAM Screens & Bins

Operations, Property and/or Equipment Description:

Raw materials screening and conveying system. Elevators, screening, belt conveyer to bins. Continuous operation, maximum production capacity 35.0 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 1.75 pounds per hour and 7.67 tons per year. The requirements established pursuant to this rule also includes the requirements of OAC rules 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The 1.75 pounds per hour and 7.67 tons per year PE limits established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

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

b. Emission Limitations:

Stack PE shall not exceed 1.75 pounds per hour and 7.67 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000).

g) Miscellaneous Requirements

(1) None.

7. P912, BB Grind & Screen

Operations, Property and/or Equipment Description:

Raw materials screening and conveying system. Conveyor, dry pan, elevator and screening. Continuous operation, maximum production capacity 12.5 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 1.14 pounds per hour and 4.99 tons per year. The requirements established pursuant to this rule also include the requirements of OAC rules 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The 1.14 pounds per hour and 4.99 tons per year PE limits established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

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

b. Emission Limitations:

Stack PE shall not exceed 1.14 pounds per hour and 4.99 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000).

g) Miscellaneous Requirements

(1) None.

8. P918, Batt Brick Crushing

Operations, Property and/or Equipment Description:

Raw materials crushing and conveying system. Front end loaders, hoppers, belt conveyers and jaw crusher. Continuous operation, maximum production capacity 35.0 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack serving this emissions unit shall not exceed 0.51 pound per hour and 2.2 tons per year. The requirements established pursuant to this rule also include the requirements of OAC rule 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The 0.51 pound per hour and 2.2 tons per year PE limits established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in the method of operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
 - b. the color of the emissions;

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

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

b. Emission Limitations:

Stack PE shall not exceed 0.51 pound per hour and 2.2 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly emission limitation shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000)

g) Miscellaneous Requirements

(1) None.

9. Emissions Unit Group -BRAM Mixers: P018,P019,P020

EU ID	Operations, Property and/or Equipment Description
P018	Mixer #1 -- Raw materials mixed with additives. Batch operation, maximum production capacity 6.00 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.
P019	Mixer #2 -- Raw materials mixed with additives. Batch operation, maximum production capacity 6.00 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.
P020	Mixer #3 -- Raw materials mixed with additives. Batch operation, maximum production capacity 6.00 tons per hour. A dust collector, integral to this emissions unit, serves as process control to capture and recycle material back into the process. Per the application, this emissions unit will employ neither production restrictions nor emissions control, and its operation as such will not compromise the company's synthetic minor strategy to maintain this facility as a minor source of all emissions, thus avoiding Title V requirements.

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
- (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
- a. None.
- (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
- a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack serving each emissions unit shall not exceed 0.39 pound per hour and 1.7 tons per year. Volatile organic compounds (VOC) emissions from each emissions unit shall not exceed 0.57 pound per hour and 2.5 tons per year. The requirements established pursuant to this rule also include the requirements of OAC rules 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)	None. Pursuant to OAC rule 3745-17-07(B)(11)(e), the visible PE limitations specified in paragraphs (B)(1) to (B)(9) of OAC rule 3745-17-07 do not apply to any fugitive dust source which is not located within the geographical areas specified in appendix A of rule 3745-17-08 of the Administrative Code.
d.	OAC rule 3745-17-08(A)(1)	None. The requirements of OAC rule 3745-17-08(B) are not applicable to this emissions unit since it is not located within an "Appendix A" area, as identified in OAC rule 3745-17-08.
e.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The 0.39 pound per hour and 1.7 tons per year PE, and 0.57 pound per hour and 2.5 tons per year VOC limits established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potentials to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final permit-to-install and operate (PTIO) prior to making any change to equipment, change in process materials, change in the method of

operation or any other change to this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 of any type of air contaminant not previously emitted.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the stack(s) 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. identify the stack(s);
- b. the color of the emissions;
- c. whether the emissions are representative of normal operations;
- d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- e. the total duration of any visible emission incident; and
- f. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:

- a. all instances during which any visible particulate emissions were observed from any stack, including identification of the stack(s), serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:

Visible PE from each stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

Stack PE from each emissions unit shall not exceed 0.39 pound per hour and 1.7 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Methods 1 - 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000).
 - c. Emission Limitations:

VOC emissions from each emissions unit shall not exceed 0.57 pound per hour and 2.5 tons per year.

Applicable Compliance Method:

If required, compliance shall be determined through stack testing in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 25 or Method 25A.

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As long as compliance with the hourly emission limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760 and then dividing by 2000).

g) Miscellaneous Requirements

(1) None.