OhioEPA

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Certified Mail

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

10/7/2014

Mr. Ian Proudfoot
EI Ceramics LLC
2600 Commerce Blvd.
Cincinnati, OH 45241

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1431404130
Permit Number: P0117147
Permit Type: Renewal
County: Hamilton

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

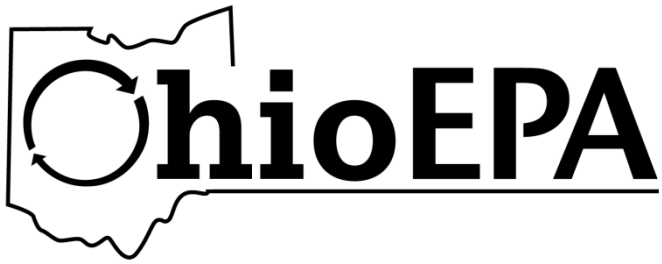
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Erica R. Engel-Ishida, Interim Manager
Permit Issuance and Data Management Section, DAPC

Cc: SWOAQA



FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
EI Ceramics LLC

Facility ID:	1431404130
Permit Number:	P0117147
Permit Type:	Renewal
Issued:	10/7/2014
Effective:	10/7/2014
Expiration:	8/27/2019

Division of Air Pollution Control
Permit-to-Install and Operate
for
EI Ceramics LLC

Table of Contents

Authorization

Facility ID:	1431404130
Application Number(s):	A0050399
Permit Number:	P0117147
Permit Description:	Renewal of Federally Enforceable Permits for Mixing (P001), Batch Kiln #1 (P003), and Batch Kiln #2 (P004) for Ceramics Manufacturing Process
Permit Type:	Renewal
Permit Fee:	$0.00
Issue Date:	10/7/2014
Effective Date:	10/7/2014
Expiration Date:	8/27/2019

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

EI Ceramics LLC
2600 Commerce Blvd.
Sharonville, OH 45241

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

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0117147
Permit Description: Renewal of Federally Enforceable Permits for Mixing (P001), Batch Kiln #1 (P003), and Batch Kiln #2 (P004) for Ceramics Manufacturing Process

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

Emissions Unit ID:	**P001**
Company Equipment ID:	Mixing Process
Superseded Permit Number:	P0114442
General Permit Category and Type:	Not Applicable

Group Name: Batch Kilns 1 and 2

Emissions Unit ID:	**P003**
Company Equipment ID:	Kiln #1
Superseded Permit Number:	P0114442
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	Kiln #2
Superseded Permit Number:	P0114442
General Permit Category andType:	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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 of this permit 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 [DO/LAA] 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 submitting 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 emission 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 beingpermanently shut down without first applying for and obtaining a permit pursuantto OAC Chapter 3745-31.

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

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) 2., 3., 4., and 5.

2. The actual emissions of Hazardous Air Pollutants (HAPs), as identified inSection 112(b) of Title III of the Clean Air Act from emissions units P001 (Mixing Process, Rotary Dryer, Vibrating Screen, and Hammermill), P002 (Curing Oven No. 1), P003 (Kiln No. 1 with Thermal Oxidizer), P004 (Batch Kiln No. 2 with Thermal Oxidizer), P005 (Curing Oven No. 2), P006 (Batch Kiln No. 3 with Thermal Oxidizer), P007 (Curing Oven No. 3), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

3. The permittee shall collect and record the following information each month for the emissions units identified in 2.:

   a) the name and identification number of each HAP containing material employed;

   b) the identification of each individual HAP contained in each material employed;

   c) the HAP emission factor for each individual HAP and each type of operation;

   d) the total individual HAP emissions for each HAP from all sources, in pounds or tons per month;

   e) the total combined HAP emissions from all sources, in pounds or tons per month [the summation of the individual HAP emissions from d) above];

   f) the updated rolling, 12-month summation of the individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and

   g) the updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

   * A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Southwest Ohio Air Quality Agency. This information does not have to be kept on an individual emissions unit basis.

4. The permittee shall submit quarterly deviation reports which identify any exceedance of the HAP emission limitations outlined in 2. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).

5. Emission Limitation:

   HAP emissions shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for combined HAPs, based on a rolling, 12-month summation for the emissions units listed in 2.

   Applicable Compliance Method:

   Compliance with the HAP emission limitations in 2.shall be demonstrated by the record keeping requirements specified in 3.

C. Emissions Unit Terms and Conditions

1. P001, Mixing Process

Operations, Property and/or Equipment Description:

Mixing Process, including mixers, rotary dryer, conveyors, vibrating screen and hammermill, equipped with baghouse, cyclone, and thermal oxidizer

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)b., b)(2)b., d)(1) – d)(4), e)(2), f)(1)g., and f)(2).

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) shall not exceed 2.37 pounds per hour and 10.4 tons per year (TPY) from the mixing process (excluding combustion emissions from the rotary dryer and oxidizer). Particulate matter 10 microns and less in diameter (PM_{10}) emissions shall not exceed 0.67 pound per hour and 2.93 TPY from the mixing process (excluding combustion emissions from the rotary dryer and oxidizer). Volatile organic compound (VOC) emissions shall not exceed 2.3 pounds per hour from the mixing process, including combustion emissions from the rotary dryer and oxidizer.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Nitrogen oxides (NOx) emissions shall not exceed 0.1 pound per MMBtu of actual heat input and 3.88 TPY from the combustion of natural gas in the rotary dryer and oxidizer. Carbon monoxide (CO) emissions shall not exceed 0.084 pound per MMBtu of actual heat input and 3.26 TPY from the combustion of natural gas in the rotary dryer and oxidizer. Sulfur dioxide (SO_2) emissions shall not exceed 0.0006 pound per MMBtu of actual heat input and 0.02 TPY from the combustion of natural gas in the rotary dryer and oxidizer. PE and PM_{10} emissions shall not exceed 0.0019 pound per MMBtu of actual heat input and 0.07 TPY from the combustion of natural gas in the rotary dryer and oxidizer. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-07(B)(1), OAC rule 3745-17-08(B), and OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D) *Federally Enforceable Limitations to Avoid Title V and Nonattainment New Source Review*	VOC emissions shall not exceed 10.0 TPY, based upon a rolling 12-month summation, from the mixing process, including combustion emissions from the rotary dryer and oxidizer. See B.2. and b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from the batch weighing area.
f.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-21-07(M)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The PE, PM_{10}, NOx, CO, and SO_2 emission limitations above are based upon the emissions unit's potential to emit at maximum capacity assuming 8,760 hours per year. Therefore, no record keeping or reporting requirements are necessary to demonstrate compliance with these limitations.

b. All of the VOC emissions from the emissions unit shall be vented to a thermal oxidizer with a control efficiency of at least 95% by weight that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limits, the use of a fabric filter to control the mixing and batching area, and a thermal oxidizer to control the mixing area (rotary dryer).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the emissions unit's production rate, in tons/month;

b. the emissions unit's natural gas usage rate, in mmcf/month;

c. the VOCemission rate for each month of operation, in tons; and

d. the rolling, 12-month summation of the VOC emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.

The VOC emission rates shall be calculated using the production emission factor and control device efficiency established during the most recent performance test in accordance with the calculations in f)(1)g.

(2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is 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. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. 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 limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(4) Whenever the monitored 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the temperature readings immediately after the corrective action was implemented; and

k. 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 properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a weekly 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.

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the conveyor/screening baghouse is between 1 to 8 inches of water.

(7) Whenever the monitored value for the pressure drop deviates from the limit or range 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 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. 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.

This range or limit on the pressure drop across the baghouse 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 limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or 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.

(8) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

(2) 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 emission limitation for VOC;

ii. each period of time (start time and date, and end time and date) when the combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration; and

iii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;

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 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).

(3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

(4) The permittee shall identify in the annual PER the following information concerning the operation of the thermal oxidizer during the 12-month reporting period for this emissions unit:

a. each period of time (start time and date, and end time and date) when the combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit was 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 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).

(5) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;

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 pressure drop 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.

(6) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(8) above:

a. all days during which any visible particulate emissions were observed from the stack(s) serving this emissions unit;

b. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack(s) and/or visible emissions of fugitive dust.

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:

PE shall not exceed 2.37 pounds per hour and 10.4 TPY from the mixing process (excluding combustion emissions from the rotary dryer and oxidizer).

Applicable Compliance Method:

The hourly and annual potential PE rates for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

PE = [(0.6 ton per hour max production rate) x (1.2 lbs PE per ton of production emissions factor for skip hoist, belt conveyor, chute, and drum) x (1 – 99% control efficiency for baghouse)] + [(0.6 ton per hour max production rate) x (0.6 lb PE per ton of production emissions factor for mixers)] + [(0.6 ton per hour max production rate) x (65.0 lbs PE per ton of production emissions factor for rotary dryer) x (1 – 95% control efficiency for rotary dryer cyclone)] + [(0.6 ton per hour max production rate) x (8.5 lbs PE per ton of production emissions factor for screen and crush) x (1 – 99% control efficiency for baghouse)] = 2.37 pounds per hour.

PE = (2.37 pounds per hour potential hourly emissions) x (8760 hrs/yr) / (2000 lbs/ton) = 10.4 TPY.

b. Emission Limitation:

PM_{10} emissions shall not exceed 0.67 pound per hour and 2.93 TPY from the mixing process (excluding combustion emissions from the rotary dryer and oxidizer).

Applicable Compliance Method:

The hourly and annual potential PM_{10} emission rates for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

PM_{10} = [(0.6 ton per hour max production rate) x (0.6 lb PM_{10} per ton of production emissions factor for skip hoist, belt conveyor, chute, and drum) x (1 – 99% control efficiency for baghouse)] + [(0.6 ton per hour max production rate) x (0.3 lb PM_{10} per ton of production emissions factor for mixers)] + [(0.6 ton per hour max production rate) x (16.0 lbs PM_{10} per ton of production emissions factor for rotary dryer) x (1 – 95% control efficiency for rotary dryer cyclone)] + [(0.6 ton per hour max production rate) x (0.53 lb PM_{10} per ton of production emissions factor for screen and crush) x (1 – 99% control efficiency for baghouse)] = 0.67 pound per hour.

PM_{10} = (0.67 pound per hour potential hourly emissions) x (8760 hrs/yr) / (2000 lbs/ton) = 2.93 TPY.

c. Emission Limitation:

NOx emissions shall not exceed 0.1 pound per MMBtu of actual heat input and 3.88 TPY from the combustion of natural gas in the rotary dryer and oxidizer.

Applicable Compliance Method:

The pound per MMBtu and annual uncontrolled potential NOx emission rates for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

NOx = (100 lbsNOx/mm cu ft natural gas emissions factor; AP-42 Table 1.4-1, dtd. 7/98) / (1000 MMBtu/mm cu ft of natural gas) = 0.1 pound per MMBtu.

NOx = (0.00886 mm cu ft / hr max natural gas usage) x (100 lbsNOx/mm cu ft emissions factor; AP-42 Table 1.4-1, dtd. 7/98) x (8760 hrs/yr) / (2000 lbs/ton) = 3.88 TPY.

d. Emission Limitation:

CO emissions shall not exceed 0.084 pound per MMBtu of actual heat input and 3.26 TPY from the combustion of natural gas in the rotary dryer and oxidizer.

Applicable Compliance Method:

The pound per MMBtu and annual uncontrolled potential CO emission rates for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

CO = (84 lbs CO/mm cu ft natural gas emissions factor; AP-42 Table 1.4-1, dtd. 7/98) / (1000 MMBtu/mm cu ft of natural gas) = 0.084 pound per MMBtu.

CO = (0.00886 mm cu ft / hr max natural gas usage) x (84 lbs CO/mm cu ft emissions factor; AP-42 Table 1.4-1, dtd. 7/98) x (8760 hrs/yr) / (2000 lbs/ton) = 3.26 TPY.

e. Emission Limitation:

SO_2 emissions shall not exceed 0.0006 pound per MMBtu of actual heat input and 0.02 TPY from the combustion of natural gas in the rotary dryer and oxidizer.

Applicable Compliance Method:

The pound per MMBtu and annual uncontrolled potential SO_2 emission rates for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

SO_2 = (0.6 lb SO_2/mm cu ft natural gas emissions factor; AP-42 Table 1.4-2, dtd. 7/98) / (1000 MMBtu/mm cu ft of natural gas) = 0.0006 pound per MMBtu.

SO_2 = (0.00886 mm cu ft / hr max natural gas usage) x (0.6 lb SO_2/mm cu ft emissions factor; AP-42 Table 1.4-2, dtd. 7/98) x (8760 hrs/yr) / (2000 lbs/ton) = 0.02 TPY.

f. Emission Limitation:

PE and PM_{10} emissions shall not exceed 0.0019 pound per MMBtu of actual heat input and 0.07 TPY from the combustion of natural gas in the rotary dryer and oxidizer.

Applicable Compliance Method:

The pound per MMBtu and annual uncontrolled potential PE/PM_{10} emission rates from the combustion of natural gas rotary dryer and thermal oxidizer for emissions unit P001 were determined based on the following equations from the permittee-supplied information in the application:

PE/PM_{10} = (1.9 lbs PE/mm cu ft natural gas emissions factor; AP-42 Table 1.4-2, dtd. 7/98) / (1000 MMBtu/mm cu ft of natural gas) = 0.0019 pound per MMBtu.

PE/PM_{10} = (0.00886 mm cu ft / hr max natural gas usage) x (1.9 lbs PE/mm cu ft emissions factor; AP-42 Table 1.4-2, dtd. 7/98) x (8760 hrs/yr) / (2000 lbs/ton) = 0.07 TPY. For natural gas combustion, all PE is assumed to be PM_{10}.

g. Emission Limitations:

VOC emissions shall not exceed 2.3 pounds per hour from the mixing process, including combustion emissions from the rotary dryer and oxidizer.

VOC emissions shall not exceed 10.0 TPY, based upon a rolling 12-month summation, from the mixing process, including combustion emissions from the rotary dryer and oxidizer.

Applicable Compliance Method:

The actual VOC emission rate, in pounds per hour, is based upon compliance with the specified control device efficiency of 95% in b)(2)b. and shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the hourly emission limitation for VOC by conducting emission tests in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A. See f)(2).

Compliance with the 12-month rolling VOC emission limitation shall be determined by the record keeping requirements specified in d)(1). The VOC emission rate, in tons per year, is calculated with the following equation from the permittee-supplied information in the application, using the information collected in d)(1) and results of the control device performance testing required in f)(2):

VOC = [(actual production rate in tons per month) x (73.4 lbs VOC per ton emission factor, permittee-supplied) x (1 – the control efficiency of the thermal oxidizer) / (2000 lbs/ton)] + [(actual natural gas usage in mmcf per month) x (11 lbs total OC/mmcf emission factor, AP-42 Table 1.4-2, dtd. 7/98) / (2000 lbs/ton)]. All OC is assumed to be VOC.

h. Emission Limitation:

Visible particulate emissions from the stacks serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

i. Emission Limitation:

Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 2 years after issuance of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the control efficiency limitation for VOC emissions and the VOC mass emission rate, in pounds per hour.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 or 25A, 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval

prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

g) Miscellaneous Requirements

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

2. Emissions Unit Group - Batch Kilns 1 and 2: P003 and P004

EU ID	Operations, Property and/or Equipment Description
P003	Batch Kiln No. 1 with thermal oxidizer
P004	Batch Kiln No. 2 with thermal oxidizer

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. g)(1).

(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)b., b)(2)b., d)(1) - d)(4), e)(2), f)(1)e., and f)(2).

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)	VOC emissions shall not exceed 3.92 pounds per hour. PE shall not exceed 0.19 pound per hour and 0.83 TPY. PM_{10} emissions shall not exceed 0.14 pound per hour and 0.62 TPY. NOx emissions shall not exceed 0.28 pound per hour and 1.23 TPY. SO_2 emissions shall not exceed 0.34 pound per hour and 1.49 TPY. CO emissions shall not exceed 0.68 pound per hour and 3.0 TPY.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D) *Federally Enforceable Limitations to Avoid Title V and Nonattainment New Source Review*	VOC emissions shall not exceed 17.2 TPY, based upon a rolling, 12-month summation. See B.2. and b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving each emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(M)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The PE, PM_{10}, NOx, CO, and SO_2 emission limitations above are based upon the emissions unit's potential to emit at maximum capacity assuming 8,760 hours per year. Therefore, no record keeping or reporting requirements are necessary to demonstrate compliance with these limitations.

b. All of the VOC emissions from the emissions units shall be vented to a thermal oxidizer with a control efficiency of at least 95% by weight that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limits and the use of a 95% efficient thermal oxidizer on the kilns.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for each emissions unit:

a. the emissions unit's production rate, in tons/month;

b. the emissions unit's natural gas usage rate, in mmcf/month;

c. the VOCemission rate for each month of operation, in tons; and

d. the rolling, 12-month summation of the VOC emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.

The VOC emission rates shall be calculated using the production emission factor and control device efficiency established during the most recent performance test in accordance with the calculations in f)(1)e.

(2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is 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 limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit controlled by the thermal oxidizer is 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 was in compliance.

(4) Whenever the monitored 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the temperature readings immediately after the corrective action was implemented; and

k. 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

(2) 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 emission limitation for VOC;

ii. each period of time (start time and date, and end time and date) when the combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration; and

iii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;

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 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).

(3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

(4) The permittee shall identify in the annual PER the following information concerning the operation of the thermal oxidizer during the 12-month reporting period for the emissions unit:

a. each period of time (start time and date, and end time and date) when the combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit was 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 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).

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 Limitations:

PE shall not exceed 0.19 pound per hour and 0.83 TPY.

PM_{10} emissions shall not exceed 0.14 pound per hour and 0.62 TPY.

Applicable Compliance Method:

The limitations above represent the maximum potential uncontrolled emission rates of the emissions unit. The potential PE and PM_{10} emission rates are based on the following equations from the permittee-supplied information in the application:

PE = [(0.5 ton per hour max production rate for the kiln) x (0.37 lb PE per ton emission factor, AP-42 Table 11.3-1, dtd 8/97)] + [(0.001 mmcf/hr maximum natural gas usage) x (1.9 lbs PE/mmcf emission factor; AP-42 Table 1.4-2, dtd. 7/98)] = 0.19 pound per hour. Annual PE = 0.19 pound/hour x (8760 hrs/yr) / (2000 lbs/ton) = 0.83 TPY.

PM_{10} = [(0.5 ton per hour max production rate for the kiln) x (0.28 lb PM_{10} per ton emission factor, AP-42 Table 11.3-1, dtd 8/97)] + [(0.001 mmcf/hr maximum natural gas usage) x (1.9 lbs PM_{10}/mmcf emission factor; AP-42 Table 1.4-2, dtd. 7/98)] = 0.14 pound per hour. Annual PM_{10} = 0.14 pound/hour x (8760 hrs/yr) / (2000 lbs/ton) = 0.62 TPY.

b. Emission Limitation:

NOx emissions shall not exceed 0.28 pound per hour and 1.23 TPY.

Applicable Compliance Method:

The limitation above represents the maximum potential uncontrolled emission rate of the emissions unit. The potential NOx emission rate is based on the following equation from the permittee-supplied information in the application:

NOx = [(0.5 ton per hour max production rate for the kiln) x (0.35 lbNOx per ton emission factor, AP-42 Table 11.3-3, dtd 8/97)] + [(0.001 mmcf/hr maximum natural gas usage) x (100 lbsNOx/mmcf emission factor; AP-42 Table 1.4-1, dtd. 7/98)] = 0.28 pound per hour. Annual NOx = 0.28 pound/hour x (8760 hrs/yr) / (2000 lbs/ton) = 1.23 TPY.

c. Emission Limitation:

CO emissions shall not exceed 0.68 pound per hour and 3.0 TPY.

Applicable Compliance Method:

The limitation above represents the maximum potential uncontrolled emission rate of the emissions unit. The potential CO emission rate is based on the following equation from the permittee-supplied information in the application:

CO = [(0.5 ton per hour max production rate for the kiln) x (1.2 lbs CO per ton emission factor, AP-42 Table 11.3-3, dtd 8/97)] + [(0.001 mmcf/hr maximum natural gas usage) x (84 lbs CO/mmcf emission factor; AP-42 Table 1.4-1, dtd. 7/98)] = 0.68 pound per hour. Annual CO = 0.68 pound/hour x (8760 hrs/yr) / (2000 lbs/ton) = 3.0 TPY.

d. Emission Limitation:

SO_2 emissions shall not exceed 0.34 pound per hour and 1.49 TPY.

Applicable Compliance Method:

The limitation above represents the maximum potential uncontrolled emission rate of the emissions unit. The potential SO_2 emission rate is based on the following equation from the permittee-supplied information in the application:

SO_2 = [(0.5 ton per hour max production rate for the kiln) x (0.67 lb SO_2 per ton emission factor, AP-42 Table 11.3-3, dtd 8/97)] + [(0.001 mmcf/hr maximum natural gas usage) x (0.6 lb SO_2/mmcf emission factor; AP-42 Table 1.4-1, dtd. 7/98)] = 0.34 pound per hour. Annual SO_2 = 0.34 pound/hour x (8760 hrs/yr) / (2000 lbs/ton) = 1.49 TPY.

e. Emission Limitation:

VOC emissions shall not exceed 3.92 pounds per hour.

VOC emissions shall not exceed 17.2 TPY, based upon a rolling 12-month summation.

Applicable Compliance Method:

The actual VOC emission rate, in pounds per hour, is based upon compliance with the specified control device efficiency of 95% in b)(2)b. and shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the hourly

emission limitation for VOC by conducting emission tests in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A. See f)(2).

Compliance with the 12-month rolling VOC emission limitation shall be determined by the record keeping requirements specified in d)(1). The VOC emission rate, in tons per year, is calculated with the following equation from the permittee-supplied information in the application, using the information collected in d)(1) and results of the control device performance testing required in f)(2):

VOC = [(actual production rate in tons per month) x (156.5 lbs VOC per ton emission factor, permittee-supplied) x (1 – the control efficiency of the thermal oxidizer) / (2000 lbs/ton)] + [(actual natural gas usage in mmcf per month) x (11 lbs total OC/mmcf emission factor, AP-42 Table 1.4-2, dtd. 7/98) / (2000 lbs/ton)]. All OC is assumed to be VOC.

f. Emission Limitation:

Visible particulate emissions from the stack serving each emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

(2) The permittee shall conduct, or have conducted, emission testing for each emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to this permit's expiration.

b. The emission testing shall be conducted to demonstrate compliance with the control efficiency limitation for VOC emissions and the VOC mass emission rate, in pounds per hour.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 or 25A, 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present

and their total concentration, and on a consideration of the potential presence of interfering gases.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

g) Miscellaneous Requirements

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