



Environmental Protection Agency

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

10/6/2011

Edward Milliken
Bowerston Shale Company
PO Box 199
Bowerston, OH 44695

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

Facility ID: 0145000010
Permit Number: P0107881
Permit Type: OAC Chapter 3745-31 Modification
County: Licking

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 Newark Advocate. 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 Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049

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 Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA-CDO



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

The Bowerston Shale Company, located at 515 Main St. Bowerston, Licking County (Facility ID No. 01-45-00-0010) has submitted a Chapter 31 Modification application for their tunnel kiln (P002), used for producing clay and shale bricks. The kiln currently operates with synthetic minor restrictions to avoid triggering Title V permitting requirements. The Bowerston Shale Co. has decided to change their operating practices to accept a type of clay which would exceed current permit limitations for sulfur content.

3. Facility Emissions and Attainment Status:

The Bowerston Shale Company is currently subject to federally enforceable limitations which restrict emissions to levels below Major Source thresholds. Licking County is currently in attainment for all criteria pollutants excluding PM2.5.

4. Source Emissions:

The source's PTE totals are as follows:

Emissions	Before Synthetic Minor (tons)	After Synthetic Minor (tons)
SO2	427.5	96.5
PM	11.9	11.9
NOx	9.4	9.4
CO	32.1	32.1
OC	3.0	3.0
HF	9.9	9.9
HCl	4.5	4.5

5. Conclusion:

The federally enforceable limitations for P002 shall effectively restrict the emissions to levels below those which trigger Title V permitting. The operational restrictions, record keeping and reporting incorporated into the terms and conditions shall ensure that compliance with this permit is achieved.

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>
<u>SO2</u>	<u>96.5</u>
<u>PM</u>	<u>11.9</u>
<u>NOx</u>	<u>9.4</u>
<u>CO</u>	<u>32.1</u>
<u>OC</u>	<u>3.0</u>
<u>HCl</u>	<u>9.9</u>
<u>HF</u>	<u>4.5</u>

PUBLIC NOTICE

10/6/2011 Issuance of Draft Air Pollution Permit-To-Install and Operate

Bowerston Shale Company

1329 Seven Hills Rd NE,

Newark, OH 43055

Licking County

FACILITY DESC.: Brick and Structural Clay Tile Manufacturing

PERMIT #: P0107881

PERMIT TYPE: OAC Chapter 3745-31 Modification

PERMIT DESC: Chapter 31 modification of synthetic minor PTI 01-08117 to allow the use of high sulfur content clay in the tunnel kiln.

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: epa.ohio.gov/dapc/permit by entering the permit # or: Adam Novak, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Bowerston Shale Company**

Facility ID:	0145000010
Permit Number:	P0107881
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	10/6/2011
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
Bowerston Shale Company

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Authorization

Facility ID: 0145000010

Application Number(s): A0040427

Permit Number: P0107881

Permit Description: Chapter 31 modification of synthetic minor PTI 01-08117 to allow the use of high sulfur content clay in the tunnel kiln.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$400.00 *DO NOT send payment at this time, subject to change before final issuance*

Issue Date: 10/6/2011

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:

Bowerston Shale Company
1329 Seven Hills Rd NE
Newark, OH 43055

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:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

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: P0107881

Permit Description: Chapter 31 modification of synthetic minor PTI 01-08117 to allow the use of high sulfur content clay in the tunnel kiln.

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

Emissions Unit ID:	P002
Company Equipment ID:	Tunnel Kiln and Dryer
Superseded Permit Number:	01-08117
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 Ohio EPA DAPC, Central District Office 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

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. P002, Tunnel Kiln and Dryer

Operations, Property and/or Equipment Description:

Tunnel kiln and dryer for clay and shale bricks

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. d)(3-6)

(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.	ORC 3704.03(T)	Emissions of particulate matter (PM) shall not exceed 11.9 tons per year (TPY) as a 12-month rolling summation. Emissions of carbon monoxide (CO) shall not exceed 32.1 TYP as a 12-month rolling summation.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Emissions of nitrogen oxides (NOx) shall not exceed 2.1 pounds per hour; 9.2 TPY. Emissions of organic compounds (OC) shall not exceed 0.7 pounds per hour; 3.0 TPY. Emissions of hydrogen chloride (HCl) shall not exceed 1.0 pounds per hour; 4.5 TPY.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Emissions of hydrogen fluoride (HF) shall not exceed 2.3 pounds per hour; 9.9 ton TPY. See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)b.
d.	OAC rule 3745-31-05 (D) (Synthetic Minor to avoid Title V, and PSD)	Emission of sulfur dioxides (SO ₂) shall not exceed 96.5 TPY as a 12-month rolling summation. See c)(1)
e.	OAC rule 3745-17-07 (A)(1)	Visible emissions of particulate matter from any stack shall not exceed 20% opacity, except as provided by rule.
f.	OAC rule 3745-17-11 (B)(1)	The requirements of this rule are less stringent than the emission limitation established pursuant to OAC rule ORC 3704.03(T).

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, OC, HF, and HCl emissions from this air contaminant source since the uncontrolled potential to emit for NO_x, OC, HF, and HCl is less than 10 tons/year.
- c. The sulfur content of the clay burned in this emission unit shall not exceed 0.4 percent by weight of dry raw material.

c) Operational Restrictions

- (1) Fired brick production (dry) using clay shall not exceed 10,000 tons per rolling 12-month period.

The permittee has existing data on which to base the 12-month total at the time this permit is issued.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect or require the clay supplier to collect a representative grab sample of the clay that is received for use in this emission unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content in accordance with the following method: Quantitative Chemical Analysis using Atomic Spectroscopy. Alternative, equivalent methods may be used upon receiving written approval from Ohio EPA.

- (2) The permittee shall maintain monthly records of the following:

- a. the total weight of fired brick production (dry) using clay;
- b. the total weight of fired brick production (dry) using shale;
- c. the total of fired brick production (dry) using clay in this emission unit during the previous 12-month period;
- d. the total of fired brick production (dry) using shale in this emission unit during the previous 12-month period; and
- e. the total SO₂ emissions for the previous 12-month period, including all calculations.

The permittee has existing data on which to base the 12-month total at the time this permit is issued.

- (3) The FEPTIO application for this/these emissions unit(s), P002, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The Toxic Air Contaminant Statute, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A, as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw

materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., X hours per day and Y days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or worst case toxic contaminant(s):

Toxic Contaminant: HF

TLV (mg/m³): 2.3

Maximum Hourly Emission Rate (lbs/hr): 2.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 10.29

MAGLC (ug/m³): 54.76

The permittee, has demonstrated that emissions of HF, from emissions unit(s) P002, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the Toxic Air Contaminant Statute, ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can

affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the Toxic Air Contaminant Statute will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the Toxic Air Contaminant Statute, ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) 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.

- (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 12-month periods during which the quantity of fired brick production (dry) using clay was above the maximum specified level;
- ii. all 12-month periods during which the 12-month SO₂ emissions were above the maximum specified level; and
- iii. all exceedances of the maximum sulfur content of clay burned in this emissions unit.

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).

- (3) 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.

- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- 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. Emissions Limitation:
96.5 tons per year (TYP) of SO₂ as a 12-month rolling summation.
- Applicable Compliance Method:
Compliance shall be based upon the recordkeeping as required in section d)(2) If required, compliance shall be determined through Methods 1-4 and 6C of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- b. Emissions Limitation:
Visible particulate emissions shall not exceed 20% opacity as a six-minute average.
- Applicable Compliance Method
Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).
- c. Emission Limitation:
Particulate matter emissions shall not exceed 11.9 TYP as a 12-month rolling summation.
- Applicable Compliance Method
Compliance with the short term emission limitation shall be demonstrated by multiplying the maximum 12-month throughput of 53,436 tons/yr by the emission factor of 0.447 lb PM/ton of bricks and dividing by 2000 lbs/ton (AP-42, 8/97).
- d. Emission Limitation
Hydrogen fluoride emissions shall not exceed 2.3 pounds per hour and 9.9 tons per year.
- Applicable Compliance Method
Compliance with the short term emission limitation shall be demonstrated by multiplying the maximum short term throughput of 6.1 tons/hr by the emission factor of 0.37 lb HF/ton of bricks (AP-42, 8/97).

Compliance with the long term emission limitation shall be demonstrated by multiplying the short term maximum emission rate by 8760 hr/yr and dividing by 2000 lbs/ton.

e. Emission Limitation

Nitrogen oxide emissions shall not exceed 2.1 pounds per hour and 9.2 tons per year.

Applicable Compliance Method

Compliance with the short term emission limitation shall be demonstrated by multiplying the maximum short term throughput of 6.1 tons/hr by the emission factor of 0.35 lbNOx/ton of bricks (AP-42, 8/97).

Compliance with the long term emission limitation shall be demonstrated by multiplying the short term maximum emission rate by 8760 hr/yr and dividing by 2000 lbs/ton. or of 0.35 lbNOx/ton of bricks (AP-42, 8/97).

f. Emission Limitation

Carbon monoxide emissions shall not exceed 32.1 TYP as a 12-month rolling summation.

Applicable Compliance Method

Compliance with the short terms emission limitation shall be demonstrated by multiplying the maximum 12-month throughput of 53,436 tons/yr by the emission factor of 1.2 lb CO/ton of bricks and dividing by 2000 lbs/ton. (AP-42, 8/97).

g. Emission Limitation

OC emissions shall not exceed 0.7 pounds per hour and 3.0 tons per year.

Applicable Compliance Method

Compliance with the short term emission limitation shall be demonstrated by multiplying the maximum short term throughput of 6.1 tons/hr by the emission factor of 0.112 lb OC/ton of bricks (AP-42, 8/97).

Compliance with the long term emission limitation shall be demonstrated by multiplying the short term maximum emission rate by 8760 hr/yr and dividing by 2000 lbs/ton.

h. Emission Limitation

HCl emissions shall not exceed 1.0 pounds per hour and 4.5 tons per year.

Applicable Compliance Method

Compliance with the short term emission limitation shall be demonstrated by multiplying the maximum short term throughput of 6.1 tons/hr by the emission factor of 0.17 lbHCl/ton of bricks (AP-42, 8/97).

Compliance with the long term emission limitation shall be demonstrated by multiplying the short term maximum emission rate by 8760 hr/yr and dividing by 2000 lbs/ton.



i. Emission Limitation

The sulfur content of the clay burned in this emission unit shall not exceed 0.4% by weight of dry raw material.

Applicable Compliance Method

Compliance shall be demonstrated by the record keeping and reporting requirements in Section d)(1).

g) Miscellaneous Requirements

(1) None.