



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

5/6/2013

CHARLES MULANAX
PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE
1470 E 289TH ST
WICKLIFFE, OH 44092

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0243150350
Permit Number: P0114182
Permit Type: Renewal
County: Lake

Certified Mail

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

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/dapc/permitsurvey.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 Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: Ohio EPA-NEDO



FINAL

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

PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE

Facility ID:	0243150350
Permit Number:	P0114182
Permit Type:	Renewal
Issued:	5/6/2013
Effective:	5/6/2013
Expiration:	5/6/2023



Division of Air Pollution Control
Permit-to-Install and Operate
for
PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE

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Authorization

Facility ID: 0243150350
Application Number(s): A0015699, A0046897, A0047558
Permit Number: P0114182
Permit Description: PTIO renewal permit for P014 (Ross mixer used to blend ceramic powders and trichloroethylene for cores), P016 (low pressure injection/ethanol dipping room & core burn tables, P019 (16 MMBtu/hr natural gas-fired tunnel furnace/kiln, P020 (low pressure finishing room) and P021 (50-gallon blue penetrant dye tank with hood).
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 5/6/2013
Effective Date: 5/6/2013
Expiration Date: 5/6/2023
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE
1470 East 289th Street
Wickliffe, OH 44092

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

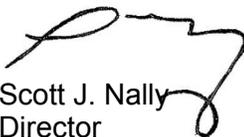
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)425-9171

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: P0114182
Permit Description: PTIO renewal permit for P014 (Ross mixer used to blend ceramic powders and trichloroethylene for cores), P016 (low pressure injection/ethanol dipping room & core burn tables, P019 (16 MMBtu/hr natural gas-fired tunnel furnace/kiln, P020 (low pressure finishing room) and P021 (50-gallon blue penetrant dye tank with hood).

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

Emissions Unit ID:	P014
Company Equipment ID:	Ross Mixer
Superseded Permit Number:	P0085081
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P016
Company Equipment ID:	P016
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	P019
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P020
Company Equipment ID:	P020
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	Blue Dye Dip room
Superseded Permit Number:	02-20449
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE
Permit Number: P0114182
Facility ID: 0243150350
Effective Date: 5/6/2013

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, Northeast 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.

¹ Permittees 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.



Final Permit-to-Install and Operate
PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE
Permit Number: P0114182
Facility ID: 0243150350
Effective Date: 5/6/2013

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.



Final Permit-to-Install and Operate
PCC AIRFOILS, INC. - CERAMICS GROUP - WICKLIFFE
Permit Number: P0114182
Facility ID: 0243150350
Effective Date: 5/6/2013

C. Emissions Unit Terms and Conditions



1. P014, Ross Mixer

Operations, Property and/or Equipment Description:

Ross Mixer used to blend ceramic powders and Trichloroethylene for cores.

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

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

a. None.

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

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC Rule 3745-31-05(A)(3) (PTI #02-9825)	Volatile Organic Compound (VOC) emissions shall not exceed 1.17 pounds per hour (lbs/hr) and 5.12 tons per year (TPY)
b.	OAC Rule 3745-17-07	Visible particulate emissions (PE) from the exhaust stack serving this emissions unit shall not exceed 20 percent opacity, as a 6-minute average, except as provided by rule.

(2) **Additional Terms and Conditions**

a. None.

c) **Operational Restrictions**

(1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the following for this emissions unit:
 - a. the volume and density of the blending agent (trichloroethylene or other VOC) utilized in the mixing process, in gallons and pounds/gallon, respectively;
 - b. the total hours of operation of the mixer each week; and
 - c. the average hourly VOC emissions (calculated by multiplying the volume by the density (from a. above) and dividing by the weekly number of hour of operation from b. above)
- (2) 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 stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emission;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
- (3) The permittee shall also identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number 1.d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and



- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

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:

VOC emissions shall not exceed 1.17 lbs/hr and 5.12 TPY

Applicable Compliance Method:

The hourly allowable VOC emission limitation shall be demonstrated based on the record keeping requirements established in section d) of this permit.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation above in accordance with Methods 1 through 4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60 Appendix A

The annual VOC emission limitation was established base on multiplying the hourly VOC emission limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated.

- b. Emission Limitation:

Visible PE from the exhaust stack serving this emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method

If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) None.



2. P016, Injection Room and Burn Tables

Operations, Property and/or Equipment Description:

Low pressure Injection/Ethanol Dipping Room (Including slurry tanks, core presses, & core holding tanks) & Core Burn Tables

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC Rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 7.03 pounds per hour (lbs/hr) and 30.80 tons per year (TPY)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each day for this emissions unit:



- a. the name and company identification for each material employed;
 - b. the number of gallons of each material employed;
 - c. the VOC content of each material employed, in lbs/gallon;
 - d. the total VOC emissions from all materials, employed, in lbs/day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly VOC emission rate for all organic materials, i.e. d./e., in lbs/hr.
- (2) The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. a copy of the resulting computer model runs that show the results of the application of Air Toxic Policy for the change.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
- 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:

VOC emissions shall not exceed 7.03 lbs/hr and 30.80 TPY

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with the record keeping and monitoring requirements established in section d) of this permit.



If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with Methods 1 through 4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60 Appendix A.

The annual VOC emission limitation was established base on multiplying the hourly VOC emission limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated.

g) Miscellaneous Requirements

- (1) This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of OAC Rule 3745-31-05 and to ensure compliance with OAC Rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the material used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Ethanol

Threshold Limit Value (TLV) ($\mu\text{g}/\text{m}^3$): 1,880,000

Maximum Hourly Emission Rate (lbs/hr): 10.58

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 17,903.51

MAGLC ($\mu\text{g}/\text{m}^3$): 44,761.904

- (2) OAC Chapter 3745-31 requires permittees to apply for an obtain a new or modified permit to install prior to making a "modification" as defined by OAC Rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":
- a. changes in the composition of the materials used (typically for coatings and cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower TLV, as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV specified in the above table;
 - b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
 - c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and



- d. changes in the composition of the materials , or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
- (3) The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
 - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
 - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the result of the application of the Air Toxic Policy for the change.
- (4) For any change to the emission unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a “modification” as defined in OAC Rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.



3. P019, Kiln

Operations, Property and/or Equipment Description:

16 MMBTU/Hour natural gas fire Tunnel Furnace/Kiln

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC Rule 3745-31-05(A)(3)	Nitrogen Oxides (NO _x) shall not exceed 1.60 pounds per hour (lbs/hr) and 7.01 tons per year (TPY) Carbon Monoxide (CO) emissions shall not exceed 1.344 lbs/hr and 5.89 TPY Particulate Matter (PM) emissions shall not exceed 0.1216 lbs/hr and 0.54 TPY Sulfur Dioxide (SO ₂) emissions shall not exceed 0.0096 lbs/hr and 0.04 TPY Volatile Organic Compound (VOC) emissions shall not exceed 0.088 lbs/hr and 0.39 TPY Visible particulate emissions (PE) from this emissions unit shall not exceed 5%



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		opacity from any stack.
b.	OAC Rule 3745-17-07 and OAC Rule 3745-17-11	The emission limitations specified by these rules are as stringent as or less stringent than emission limitations established under BAT.
c.	OAC Rule 3745-18-06	The emission limitations specified by this rule is as stringent as or less stringent than the emission limitations established under BAT.

(2) Additional Terms and Conditions

- a. This emissions unit shall minimize the nitrogen oxides emissions by use of the latest available control techniques and operating practices in accordance with best current technology.
- b. The hourly and annual allowable emission limitations were established based on the emissions units' potentials to emit. Therefore, no record keeping, reporting and/or testing requirements will be necessary for these emission limitations.
- c. This is an inherently clean emissions unit. The combustion of natural gas is the only source of particulates.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day a permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.



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:

NO_x emissions shall not exceed 1.60 lbs/hr

CO emissions shall not exceed 1.344 lbs/hr

PM emissions shall not exceed 0.1216 lbs/hr

SO₂ emissions shall not exceed 0.0096 lbs/hr

VOC emissions shall not exceed 0.088 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emissions factors, from section 1.4, tables 1.4-1 & 1.4-2, fifth edition, 2/98, for natural gas combustion by the maximum hourly gas burning capacity (16,000 ft³/hr) of the emissions unit.

b. Emission Limitations:

NO_x emissions shall not exceed 7.01 TPY

CO emissions shall not exceed 5.89 TPY

PM emissions shall not exceed 0.54 TPY

SO₂ emissions shall not exceed 0.04 TPY

VOC emissions shall not exceed 0.39 TPY

Applicable Compliance Method

The TPY emission limitation was developed by multiplying the lb/hr emission limitation by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the lb/hr emission limitation, compliance shall be demonstrated with the annual emission limitation.

c. Emission Limitation:

Visible PE from any exhaust stack serving this emissions unit shall not exceed 5 percent opacity.



Applicable Compliance Method

If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60, Appendix A.

- g) Miscellaneous Requirements
 - (1) None.



4. P020, Low Pressure Finishing Room

Operations, Property and/or Equipment Description:

Low Pressure Finishing Room

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC Rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 1.05 pounds per hour (lbs/hr) and 4.60 tons per year (TPY)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each day for this emissions unit:



- a. the name and company identification for each material employed;
 - b. the number of gallons of each material employed;
 - c. the VOC content of each material employed, in lbs/gallon;
 - d. the total VOC emissions from all materials, employed, in lbs/day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly VOC emission rate for all organic materials, i.e. d./e., in lbs/hour.
- (2) The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. a copy of the resulting computer model runs that show the results of the application of Air Toxic Policy for the change.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
- 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:
VOC emissions shall not exceed 1.05 lbs/hr and 4.60 TPY

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with the record keeping and monitoring requirements established in section d) of this permit.



If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with Methods 1 through 4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60 Appendix A.

The annual VOC emission limitation was established base on multiplying the hourly VOC emission limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated.

g) Miscellaneous Requirements

- (1) This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of OAC Rule 3745-31-05 and to ensure compliance with OAC Rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the material used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Ethanol

Threshold Limit Value (TLV) ($\mu\text{g}/\text{m}^3$): 1,880,000

Maximum Hourly Emission Rate (lbs/hr): 10.58

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$): 17,903.51

MAGLC ($\mu\text{g}/\text{m}^3$): 44,761.904

- (2) OAC Chapter 3745-31 requires permittees to apply for an obtain a new or modified permit to install prior to making a "modification" as defined by OAC Rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":
- a. changes in the composition of the materials used (typically for coatings and cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower TLV, as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV specified in the above table;
 - b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
 - c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and



- d. changes in the composition of the materials , or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
- (3) The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
 - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
 - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the result of the application of the Air Toxic Policy for the change.
- (4) For any change to the emission unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a “modification” as defined in OAC Rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.



5. P021, Blue Dye Dip room

Operations, Property and/or Equipment Description:

A 50-gallon blue penetrant dye tank with hood.

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

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

a. None.

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

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC Rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 4.02 pounds per hour (lbs/hr) and 17.6 tons per year (TPY)

(2) **Additional Terms and Conditions**

a. None.

c) **Operational Restrictions**

(1) None.

d) **Monitoring and/or Recordkeeping Requirements**

(1) The permittee shall collect and record the following information each day for this emissions unit:

a. the name and company identification for each material employed;



- b. the number of gallons of each material employed;
 - c. the VOC content of each material employed;
 - d. the total VOC emissions from all materials, employed, in lbs/day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly VOC emission rate for all organic materials, i.e. d./e., in lbs/hr.
- (2) The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. a copy of the resulting computer model runs that show the results of the application of Air Toxic Policy for the change.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
- 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:
VOC emissions shall not exceed 4.02 lbs/hr and 17.6 TPY
 - Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with the record keeping and monitoring requirements established in d).



If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation above in accordance with Methods 1 through 4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60 Appendix A.

The annual VOC emission limitation was established base on multiplying the hourly VOC emission limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated.

g) Miscellaneous Requirements

- (1) None.