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

Permit To Install **14-05702**

A. Source Description

EI Ceramics LLC has applied for an air permit-to-install (PTI) to add an additional kiln and curing oven to produce ceramic shapes that are used in the steel industry. This permit application includes a new kiln (emissions unit P004) controlled with an oxidizer and a new curing oven (emissions unit P005) controlled with an oxidizer.

B. Facility Emissions and Attainment Status

The facility is located in Hamilton County which is a non-attainment area for ozone (VOC) and NOx for New Source Review purposes and attainment for all other pollutants. The permittee requests to incorporate federally enforceable limitations in this permit limiting VOC/OC emissions to less than the major source thresholds.

C. Source Emissions

The total OC (VOC emissions are a subset of OC emissions) emissions limitation for both emission units combined will be 28.3 tons per year (TPY). The permit has monthly and annual OC emissions limits which are based on the maximum operational capacity of the equipment. Both emissions units are each controlled by their own 95% efficient thermal oxidizer. Without requiring the use of the thermal oxidizer in the permit, the facility OC emissions would be approximately 566 TPY.

D. Conclusion

The terms and conditions in this permit will limit the OC emissions to a total of 28.3 TPY. The permittee will maintain monthly production records and submit quarterly deviation reports to demonstrate compliance. Because the allowable OC emissions are less than 100 TPY, the permittee will not be subject to the requirements of the Emissions Offset Policy and not required to obtain a Title V operating permit.

State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL **CERTIFIED MAIL**
HAMILTON COUNTY

Street Address: Mailing Address:
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Lazarus Gov. Center

Application No: 14-05702
Fac ID: 1431404130

DATE: 5/12/2005

EI Ceramics LLC
Graham Roberts
2600 Commerce Blvd.
Cincinnati, OH 45241

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

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **$700** will be due. Please do not submit any payment now.

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

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA HCDES OH-KY-IN Regional Council of Gov. KY IN

HAMILTON COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **14-05702** FOR AN AIR CONTAMINANT SOURCE FOR **EI Ceramics LLC**

On 5/12/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **EI Ceramics LLC**, located at **2600 Commerce Blvd., Sharonville**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 14-05702:

Installation of a Batch Kiln and a Batch Curing Oven.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Brad Miller, Hamilton County Department of Environmental Services, 250 William Howart Taft Pkwy, Cincinnati, OH 45219-2660 [(513)946-7777]

DRAFT PERMIT TO INSTALL 14-05702

Application Number:	14-05702
Facility ID:	1431404130
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	EI Ceramics LLC
Person to Contact:	Graham Roberts
Address:	2600 Commerce Blvd. Cincinnati, OH 45241

Location of proposed air contaminant source(s) [emissions unit(s)]:
2600 Commerce Blvd.
Sharonville, Ohio

Description of proposed emissions unit(s):
Installation of a Batch Kiln and a Batch Curing Oven.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any

information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

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

Pollutant	Tons Per Year
PM	1.74
PM10	1.20
OC	28.3
NOx	4.43
CO	6.3
SO2	1.53

Emissions Unit ID: **P004**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
		OAC rule 3745-17-11
P004 - Kiln No. 2 with Thermal Oxidizer	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-21-07(G)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
	OAC rule 3745-31-05(C)	
	OAC rule 3745-17-07(A)(1)	

Applicable Emissions Limitations/Control Measures	
The kiln and kiln afterburner emissions shall not exceed the following: 3.93 lbs OC/hr; 0.20 lb PM/hr, 0.86 TPY PM; 0.15 lb PM10/hr, 0.64 TPY PM10; 0.28 lb NOx/hr, 1.23 TPY NOx; 0.34 lb SO2/hr, 1.5 TPY SO2; and 0.68 lb CO/hr, 3.0 TPY CO.	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-31-05(C).	
The kiln and kiln afterburner emissions shall not exceed the following: 1.44 tons OC/month, 17.3 TPY OC.	
See term A.2.d.	
See term A.2.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).	
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).	
See term A.2.e.	
See term A.2.f.	

2. Additional Terms and Conditions

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

2.b Visible particulate emissions from the stacks associated with this emissions unit shall not exceed twenty per cent opacity, as a six-minute average, except as specified by rule.

2.c The hourly emission limitations outlined in term A.1 are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

2.d This emissions unit shall be equipped with a control device for OC emissions that is at least 95% efficient for OC emissions entering the control device.

2.e The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.f The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.
On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

C. Monitoring and/or Recordkeeping Requirements

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

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

   a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

   b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

2. The permittee shall collect and record the following information each month for this emissions unit:

   a. The emissions unit's production rate in tons/month.

   b. The total OC emission rate, in tons per month [a x 156.5 lbs. OC/ton production* x (1-0.95) (or the control efficiency established during the most recent performance test) plus the emissions from the natural gas usage in the afterburner].
   * the emission factor is based on information submitted by the permittee.

3. The permit to install for this emissions unit (P004) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum

ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hexamethlenetetramine
TLV (ug/m3): 10,000
Maximum Hourly Emission Rate (lbs/hr): 0.39
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 32.3
MAGLC (ug/m3): 238

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

a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified in term B.1.

2. The permittee shall submit an annual report of the total OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit deviation (excursion) reports which identify any exceedance of the monthly OC emissions limit in term A.1.

4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the visible particulate emissions limitations in term A.2.b shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

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 6 months after start-up of this emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the destruction efficiency and OC emission limitations.

c. The test method(s) which must be employed to demonstrate compliance with the destruction efficiency and OC emission limitations are specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

Method 25, 40 CFR Part 60, Appendix A

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services 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.

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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

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

a. Emissions Limitation:
3.93 lbs/hr OC

Applicable Compliance Method:
The OC emissions are calculated by multiplying the hourly production rate in tons per hour times the emission factor (156.5 lb per ton) times (1- control efficiency) plus the fuel usage for the kiln afterburner times the emission factor (11.0 lb/MMft3). The emission

factor (156.5 lb/ton) was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 11.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

b. Emissions Limitation:
17.3 TPY OC

Applicable Compliance Method:
The OC emissions are calculated by multiplying the annual production rate in tons per year times the emissions factor (156.5 lb per ton) times (1 - control efficiency) and converting the emissions into tons plus the annual fuel usage times the emission factor (11.0 lb/MMft3). The emission factor (156.5 lb/ton) was provided in PTI application 14-05702 submitted March 24, 2005. The emission factor 11.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

c. Emissions Limitation:
0.20 lb/hr PM

Applicable Compliance Method:
The PM emissions are calculated by multiplying the hourly production rate for the kiln in tons per hour times the emission factor (0.37 lb per ton) plus the fuel usage for the kiln afterburner times the emission factor (7.6 lb/MMft3). The emissions factor was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 7.6 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

d. Emissions Limitation:
0.86 TPY PM

Applicable Compliance Method:
The PM emissions are calculated by multiplying the annual production rate for the kiln in tons per year times the emissions factor (0.37 lb per ton) and converting the emissions into tons plus the annual fuel usage for the kiln afterburner times the emission factor (7.6 lb/MMft3) and converting into tons. The emission factor 0.37 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 7.6 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

e. Emissions Limitation:
0.15 lb/hr PM10

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the hourly production rate for the kiln in tons per hour times the emission factor (0.28 lb per ton) plus the fuel usage for the kiln afterburner times the emission factor (7.6 lb/MMft3). The emissions factor 0.28 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 7.6 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

f. Emissions Limitation:

0.64 TPY PM10

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the annual production rate for the kiln in tons per year times the emissions factor (0.28 lb per ton) and converting the emissions into tons plus the annual fuel usage for the kiln afterburner times the emission factor (7.6 lb/MMft3) and converting into tons. The emission factor 0.28 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 7.6 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

g. Emissions Limitation:
0.28lb/hr NOx

Applicable Compliance Method:
The NOx emissions are calculated by multiplying the hourly production rate for the kiln in tons per hour times the emission factor (0.35 lb per ton) plus the fuel usage for the kiln afterburner times the emission factor (100.0 lb/MMft3). The emissions factor 0.35 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 100.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

h. Emissions Limitation:
1.23 TPY NOx

Applicable Compliance Method:
The NOx emissions are calculated by multiplying the annual production rate for the kiln in tons per year times the emissions factor (0.35 lb per ton) and converting the emissions into tons plus the annual fuel usage for the kiln afterburner times the emission factor (100.0 lb/MMft3) and converting into tons. The emission factor 0.35 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 100.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

i. Emissions Limitation:
0.34 lb/hr SO2

Applicable Compliance Method:
The SO2 emissions are calculated by multiplying the hourly production rate for the kiln in tons per hour times the emission factor (0.67 lb per ton) plus the fuel usage for the kiln afterburner times the emission factor (0.60 lb/MMft3). The emissions factor 0.67 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 0.60 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

j. Emissions Limitation:
1.5 TPY SO2

Applicable Compliance Method:
The SO2 emissions are calculated by multiplying the annual production rate for the kiln in tons per year times the emissions factor (0.67 lb per ton) and converting the emissions into tons plus the annual fuel usage for the kiln afterburner times the emission factor (0.60 lb/MMft3) and converting into tons. The emission factor 0.67 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 0.60 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

k. Emissions Limitation:
0.68 lb/hr CO

Applicable Compliance Method:
The CO emissions are calculated by multiplying the hourly production rate for the kiln in tons per hour times the emission factor (1.20 lb per ton) plus the fuel usage for the kiln afterburner times the emission factor (84.0 lb/MMft3). The emissions factor 1.20 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005. The emissions factor 84.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

l. Emissions Limitation:
3.0 TPY CO

Applicable Compliance Method:
The CO emissions are calculated by multiplying the annual production rate for the kiln in tons per year times the emissions factor (01.20 lb per ton) and converting the emissions into tons plus the annual fuel usage for the kiln afterburner times the emission factor (84.0 lb/MMft3) and converting into tons. The emission factor 1.20 lb/ton was provided in PTI application 14-05702 submitted March 24, 2005.The emissions factor 84.0 lb/MMft3 was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A., B., C.1 - C.2, D. and E.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P005 - Curing Oven No. 2	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11
		OAC rule 3745-21-07(G)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
	OAC rule 3745-31-05(C)	

Applicable Emissions Limitations/Control Measures	
The curing oven and curing oven afterburner emissions shall not exceed the following: 0.2 lb PM/hr, 0.88 TPY PM; 0.13 lb PM10/hr, 0.56 TPY PM10; and 2.52 lbs OC/hr.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
The curing oven and curing oven afterburner emissions shall not exceed the following: 0.1 lb NOx/MMBtu, 3.2 TPY NOx; 0.084 lb CO/MMBtu, 3.3 TPY CO; and 0.0006 lb SO2/MMBtu, 0.03 TPY SO2.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See term A.2.e See term A.2.f
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and 3745-31-05(C).	
The curing oven and curing oven afterburner emissions shall not exceed the following: 0.92 ton OC/month, 11.0 TPY OC from the curing oven and afterburner. See term A.2.d. See term A.2.b	

2. Additional Terms and Conditions

2.a 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 curing oven.

2.b Visible particulate emissions from the stacks associated with this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

2.c The hourly emission limitations outlined in term A.1 are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

2.d This emissions unit shall be equipped with a control device for OC emissions that is at least 95% efficient for OC emissions entering the control device.

2.e The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.f The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05697.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

C. Monitoring and/or Recordkeeping Requirements

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

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

   a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

   b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

2. The permittee shall collect and record the following information each month for this emissions unit:

   a. The emissions unit's production rate in tons/month.

   b. The total OC emission rate, in tons per month [a x 65.27 lb. OC/ton production* x (1-0.95) (or the control efficiency established during the most recent performance test) plus the emissions from the natural gas usage in the afterburner].
   * the emission factor is based on information submitted by the permittee.

3. The permit to install for this emissions unit (P005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and

the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Furfural
TLV (ug/m3): 7,900
Maximum Hourly Emission Rate (lbs/hr): 2.08
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 68
MAGLC (ug/m3): 188.1

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

a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified in term B.1.

2. The permittee shall submit deviation (excursion) reports which identify any exccedance of the monthly OC emissions limit in term A.1.

3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

4. The permittee shall submit annual reports which specify the total OC emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the visible particulate emissions limitations in term A.2.b shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

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

a. Emissions Limitation:
0.2 lb/hr PM

Applicable Compliance Method:
The PM emissions are calculated by multiplying the hourly production rate for the blender in tons per hour times the emission factor (0.60 lb per ton) times the control efficiency plus the hourly production rate for the curing oven times the emission factor (0.20 lb per ton). The emissions factors were provided in PTI application 14-05702 submitted March 24, 2005.

b. Emissions Limitation:
0.88 TPY PM

Applicable Compliance Method:
The PM emissions are calculated by multiplying the annual production rate for the blender in tons per year times the emissions factor (0.60 lb per ton) times the control efficiency and converting the emissions into tons plus the hourly production rate for the curing oven times the emissions factor (0.20 lb per ton) and converting the emissions into tons. The emission factors were provided in PTI application 14-05702 submitted March 24, 2005.

c. Emissions Limitation:
0.13 lb/hr PM10

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the hourly production rate for the blender in tons per hour times the emissions factor (0.30 lb per ton) times the control efficiency plus the hourly production rate for the curing oven times the emission factor (0.10 lb per ton). The emission factors were provided in PTI application 14-05702 submitted March 24, 2005.

d. Emissions Limitation:
0.56 TPY PM10

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the annual production rate for the blender in tons per year times the emissions factor (0.30 lb per ton) times the control efficiency and converting the emissions into tons plus the annual production rate for the curing oven times the emission factor (0.10 lb per ton) and converting the emissions into tons. The emission factors were provided in PTI application 14-05702 submitted March 24, 2005.

e. Emissions Limitation:
2.52 lbs/hr OC from the curing oven

Applicable Compliance Method:
The OC emissions are calculated by multiplying the hourly production rate in tons per hour times the emission factor (65.27 lb per ton) times (1 - control efficiency). The emission factor was provided in PTI application 14-05702 submitted March 24, 2005. Also add the emissions from the afterburner by multiplying the emission factors by the amount of the fuel burned. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

f. Emissions Limitation:
11.0 TPY OC from the curing oven

Applicable Compliance Method:
The OC emissions are calculated by multiplying the annual production rate in tons per year times the emissions factor (65.27 lb per ton) times (1 - control efficiency) and converting the emissions into tons. The emission factor was provided in PTI 14-05702 submitted March 24, 2005. Also add the emissions from the afterburner by multiplying the emission factors by the amount of the fuel burned and converting to tons. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

g. Emissions Limitation from curing oven:
0.1 lb NOx/MMbtu
0.084 lb CO/MMBtu
0.0006 lb SO2/MMBtu

Applicable Compliance Method:
The emissions are calculated by dividing the emission factors by the heat content of the fuel burned. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

h. Emission Limitation from curing oven and afterburner:
3.2 TPY NOx
3.3 TPY CO
0.03 TPY SO2

Applicable Compliance Method:
The emissions are calculated by multiplying the fuel usage times the emission factors and converting the pounds into tons. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A., B., C.1 - C.2, D. and E.