



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
BUTLER COUNTY**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05071

DATE: 4/10/2001

Custom Cast Marbleworks
Brian Schmitt
4500 Port Union Road
Hamilton, OH 45011

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

HCDES



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 14-05071

Application Number: 14-05071
APS Premise Number: 1409040931
Permit Fee: **\$400**
Name of Facility: Custom Cast Marbleworks
Person to Contact: Brian Schmitt
Address: 4500 Port Union Road
Hamilton, OH 45011

Location of proposed air contaminant source(s) [emissions unit(s)]:
4500 Port Union Road
Hamilton Ohio, Ohio

Description of proposed emissions unit(s):
One gel coat booth and one marble casting process.

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

Part I - GENERAL TERMS AND CONDITIONS

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 Related to Monitoring and Recordkeeping 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

Custom Cast Marbleworks
PTI Application: 14-05071
Issued: 4/10/2001

Facility ID: 1409040931

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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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 thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

Custom Cast Marbleworks
PTI Application: 14-05071
Issued: 4/10/2001

Facility ID: 1409040931

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	9.8

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Marble Casting Operation	OAC rule 3745-31-05(A)(3)	0.73 lb OC/hr from resin 13.1 lbs OC/day from resin 8.86 lbs OC/day from cleanup material 2.4 TPY OC from resin 1.1 TPY OC from cleanup material
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations established in this permit and compliance with the air toxics policy.
- 2.b The hourly and daily emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly or daily records are required to demonstrate compliance with these limits.

B. Operational Restrictions

1. The styrene content of the polyester resins employed in emissions unit P001 shall not exceed 29 % by weight.
2. The OC content of each cleanup material employed in this emissions unit shall not exceed 8.86 pounds of OC per gallon of cleanup material.

Emissions Unit ID: **P001**

3. The amount of cleanup material used in emissions unit P001 shall not exceed 1 gallon/day and 250 gallons/year.
4. The amount of polyester resin employed in emissions unit P001 shall not exceed 276 tons per year.
5. The permittee shall only employ nonphotochemically reactive cleanup materials in emissions unit P001.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for emissions unit P001:
 - a. The company identification for each liquid organic material (polyester resin) employed.
 - b. The number of pounds of each polyester resin employed.
 - c. The number of gallons of each cleanup material employed.
 - d. The styrene content percentage of each polyester resin employed.
 - e. The OC content of each cleanup material, in pounds per gallon.
 - f. The total organic compound emission rate for polyester resins, in pounds of OC emitted per month. To determine emissions from resins used for marble casting, multiply the pounds used by 0.03** then times the styrene content/100.

** Emission Factor taken from AP-42 Fifth Edition, January 1995, Table 4.4.-2
Emission Factors for Uncontrolled Polyester Resin Product Fabrication Processes
 - g. The total OC emission rate for all the resins and cleanup materials, in tons per month. The sum of $[f + \text{©} * e]/2000$.
 - h. A record of cleanup material employed in this emissions unit, indicating whether or not the cleanup material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
2. The permit to install for this emissions unit P001 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: Styrene

TLV (ug/m3): 85,000

Maximum Hourly Emission Rate (lbs/hr): 0.73

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 664.3

MAGLC (ug/m3): 2024

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

Emissions Unit ID: P001

exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], 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 its 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 include the following information:
 - a. An identification of each month during which the OC content of the cleanup materials employed exceeded 8.86 pounds of OC per gallon, and the actual OC content of the non-compliant cleanup materials employed.
 - b. An identification of each month during which the styrene content of polyester resins employed exceeded 29 % by weight, and the actual styrene content of the non-compliant polyester resins employed.
 - c. An identification of each month during which cleanup materials were employed that were photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall submit an annual report which specifies any exceedances of the annual resin and/or cleanup material usage limitations as well as any exceedances of the total organic compound emission limitations from this emissions unit. These reports shall be submitted by January 31 of each year and cover the previous calendar year.
3. 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 OC emission limitations specified in terms A1. of this permit shall be determined by the information collected and recorded in term C.1. of this permit.
2. Formulation data or USEPA method 24 (for coatings) shall be used to determine the OC contents of the liquid organic materials.
3. Compliance with the styrene content limit of the resin and OC content of the cleanup materials in terms B.1 and B.2 shall be determined by the record keeping in term C.1.
4. Compliance with the material usage restrictions in terms B.3 and B.4 shall be demonstrated by the recordkeeping in term C.1.

F. Miscellaneous Requirements

None

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R001 - Gel Coat Booth	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(G)(2)	8 lbs OC/hr from coatings 40 lbs OC/day from coatings 8.86 lbs OC/day from cleanup materials 5.2 TPY OC from coatings 1.1 TPY OC from cleanup materials The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the air toxics policy and emission limitations.
- 2.b The hourly emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

B. Operational Restrictions

- 1. The styrene content of the gel coat used shall not exceed 47 percent by weight.

2. The OC content of each cleanup material employed in this emissions unit shall not exceed 8.86 pounds of OC per gallon of cleanup material.
3. The amount of cleanup material used in emissions unit R001 shall not exceed 1 gallon/day and 250 gallons/year.
4. The amount of gel coat used in emissions unit R001 shall not exceed 15.49 gallons/day and 4160 gallons/year.
5. The permittee shall only employ nonphotochemically reactive cleanup materials in emissions unit R001.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for emissions unit R001:
 - a. The amount of gel coat used, in gallons;
 - b. The styrene content of the gel coat, in percent by weight;
 - c. The amount of cleanup material used, in gallons;
 - d. The OC content of the cleanup materials used, in pounds per gallon;
 - e. The daily OC emissions from gel coat calculated using the following equation:

$$\text{OC emissions} = (a) \times (\text{gel coat density}) \times (.292^{**})$$

** The emission factor above is from the Composites Fabricators Association Open Molding Emission Model, dated 5/98 and is based on a gel coat with a 47% styrene content. When a gel coat with a lower styrene content is used, the appropriate emission factor for that gel coat should be applied. The emissions factors are based on the styrene contents.

- f. The total organic compound emissions from cleanup materials, in pounds per day © x d).

- g. A record of cleanup material employed in this emissions unit, indicating whether or not the cleanup material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permit to install for this emissions unit R001 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: styrene
TLV (ug/m³): 85,000
Maximum Hourly Emission Rate (lbs/hr): 8
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 664.3
MAGLC (ug/m³): 2024

Physical changes to or in the method of operation of the emissions unit after its 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 with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], 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 its 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 include the following information:
 - a. An identification of each day during which the organic compound emissions from the coatings exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - b. An identification of each day during which the OC content of the cleanup materials employed exceeded 8.86 pounds of OC per gallon, and the actual OC content of the non-compliant cleanup materials employed.
 - c. An identification of each day during which the styrene content of the gel coat employed exceeded 47% by weight, and the actual styrene content of the non-compliant gel coat employed.
 - d. An identification of each day during which cleanup materials were employed that were

photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the usage limitations specified in terms B.3. and B.4.
3. 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 OC emission limitations specified in term A.1. of this permit shall be determined by the information collected and recorded in term C.1. of this permit.
2. Formulation data or USEPA method 24 (for coatings) shall be used to determine the OC contents of the liquid organic materials.
3. Compliance with the styrene content limit and OC content of the cleanup materials in terms B.1 and B.2 shall be determined by the record keeping in term C.1.
4. Compliance with the material usage restrictions in terms B.3 and B.4 shall be demonstrated by the recordkeeping in term C.1.

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 14-05071 Facility ID: 1409040931

FACILITY NAME Custom Cast Marbleworks

FACILITY DESCRIPTION One gel coat booth and one marble casting CITY/TWP Hamilton Ohio

Emissions Unit ID: **R001**

SIC CODE 3088 SCC CODE 3-08-007-22 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION Marble Casting Operation

DATE INSTALLED existing

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment				
PM ₁₀	attainment				
Sulfur Dioxide	attainment				
Organic Compounds	attainment	22 lbs/day	3.5	22 lbs/day	3.5
Nitrogen Oxides	attainment				
Carbon Monoxide	attainment				
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations established in this permit and compliance with the air toxics policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: styrene

18 NEW SOURCE REVIEW FORM B

PTI Number: 14-05071 Facility ID: 1409040931

FACILITY NAME Custom Cast Marbleworks

FACILITY DESCRIPTION One gel coat booth and one marble casting CITY/TWP Hamilton Ohio

Emissions Unit ID: **R001**

SIC CODE 3088 SCC CODE 3-08-007-22 EMISSIONS UNIT ID R001

EMISSIONS UNIT DESCRIPTION Gel Coat Booth

DATE INSTALLED existing

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment				
PM ₁₀	attainment				
Sulfur Dioxide	attainment				
Organic Compounds	attainment	48.86 lbs/day	6.3	48.86 lbs/day	6.3
Nitrogen Oxides	attainment				
Carbon Monoxide	attainment				
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations established in this permit and compliance with the air toxics policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: styrene

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	Electronic	<u>Additional information</u> File Name Convention (your PTI # plus this letter)	Hard Copy	None
<u>Calculations (required)</u>	<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>

NEW SOURCE REVIEW FORM B

PTI Number: 14-05071

Facility ID: 1409040931

FACILITY NAME Custom Cast Marbleworks

FACILITY DESCRIPTION One gel coat booth and one marble casting CITY/TWP Hamilton Ohio

Emissions Unit ID: **R001**

PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

[NSR Discussion](#)PERMIT REVIEW NARRATIVE
PTI 14-05071

Custom Cast Marbleworks.
4500 Port Union Road.
Hamilton, Ohio 45011
PN: 1409040931

Custom Cast Marble Works manufactures cultured marble products and is applying for a PTI for one gel coat spray booth and one marble casting operation. These operations were previously determined to be DeMinimis, but due to an increase in business they are applying for a PTI. Custom Cast Marble Works is designated a minor source for Organic Compounds (OC's) and a minor source for Hazardous Air Pollutants.

Applicable Ohio Administrative Code (OAC) rules are 3745-15-07, 3745-21-07(G)and 3745-31-05.

Emissions from this facility consist of organic compounds(OC) from resins and gel coat. The OC emissions from the resins and gel coat are in the form of styrene. Superflush S-0280 is used for cleanup. The emission limits, established in accordance with OAC rule 3745-21-07(G), will be 8.0 lbs/hr, and 40 lbs/day for emissions unit R001 and 0.73 lb/hr and 13.1 lbs/day from emissions unit P001. Emissions from cleanup materials are limited to 8.86 pounds per day for each emissions unit. The annual OC emissions from coatings are limited to 2.4 TPY for emissions unit P001 and 5.2 TPY for R001. The annual cleanup material emissions from each emissions unit are limited to 1.1 TPY each. The styrene content limits are 47 % for gel coat and 29 % for resin.

Best Available Technology (BAT) has been determined to be styrene content limitations for the gel coat and resins used, gel coat and resin usage limitations, cleanup material usage and emission limitations for both emissions units.

Since the emission factors from AP-42 are no longer valid and several studies have taken place in order to accurately determine a method to quantify styrene emissions, the CFA emissions model shall be used to calculate the emissions factor.

The calculations are based on published data found in [CFA Emission Models for the Reinforced Plastics Industries](#) by Robert A. Haberlein, Ph.D., QEP from Engineering Environmental. The formula takes into account the percent of neat resin, application methods (i.e. Controlled Spraying and Non-atomized Equipment), material formulation (i.e. Vapor

NEW SOURCE REVIEW FORM B

PTI Number: 14-05071

Facility ID: 1409040931

FACILITY NAME Custom Cast Marbleworks

FACILITY DESCRIPTION One gel coat booth and one marble casting CITY/TWP Hamilton Ohio

Emissions Unit ID: **R001**

Suppressants) and the usage rate. This formula will be included in the Compliance Methods/Testing Requirements section of the Permit to Install.

Permit Fee: R001 + P001 = \$200 + \$200 = \$400

Prepared by: Tom Wittekind

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or Netting Determination
Permit To Install ENTER PTI NUMBER HERE

- A. Source Description
- B. Facility Emissions and Attainment Status
- C. Source Emissions
- D. Conclusion

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	9.8