

1

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

**GENERAL PERMIT CONDITIONS**

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio 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 Ohio Administrative Code

2

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

(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 prove to be inadequate or cannot meet applicable standards.

#### PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

#### 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.

#### APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### 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.

3

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for 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.

4

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

5

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Precision Polymer Casting, Ltd.** located in **Geauga** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Paint booth shall employ only non-photochemically reactive coatings.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>
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K001	Paint Booth #1	Coating usage limitation: Less than 8 gallons per day.  Use of a dry filtration system.	3745-31-05
		Visible emissions shall not exceed 5% opacity as a six minute average	3745-17-11  3745-17-07

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
3745-21-07		& Conditions A.2.		Permit Allowable Mass Emissions and/or Control/Usage Requirements

VOC: Less than 8 gallons per day + 3.07 tpy  
 Particulate: Visible emissions not to exceed 5% opacity as a six minute average.

Particulate: 0.551 lb/hr and 2.41 tpy

See Additional Special Terms & conditions A.1.

See Additional Special Terms

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

SUMMARY  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
VOC	3.07 tpy
Particulate	2.41 tpy

**WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

**MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

**MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the

8

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

#### **AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

#### **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.

#### **ADDITIONAL SPECIAL TERMS AND CONDITIONS**

##### **A. Source Description**

1. The emissions unit covered by this permit to install is a DeVilbiss Proclean Crossdraft paint spray booth (K001) for painting epoxy polymer concrete machine bases using water-based coatings.
  - a. The emissions limit based on OAC Rule 3745-17-07 is less stringent than the limit established pursuant to OAC Rule 3745-31-05.
  - b. The emissions limit based on OAC Rule 3745-21-07 is less stringent than the limit established pursuant to OAC Rule 3745-31-05.

##### **B. Operational Restrictions**

1. A dry filtration system for the paint spray booth (K001) shall be used while the booth is in operation.
2. This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

01(C)(5).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each day for the paint spray booth (K001):
  - a. the name and identification number of each coating employed;
  - b. the volume, in gallons, of each coating employed; and,
  - c. the total volume, in gallons, of all of the coatings employed.
2. The permittee shall collect and record the following information for the purpose of determining annual VOC emissions:
  - a. the name and identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material employed;
  - c. the VOC content of each cleanup material, in pounds per gallon;
  - d. the VOC content of each coating, as applied, in pounds per gallon; and,
  - e. the total VOC emissions from all coatings and cleanup materials employed, in pounds or tons.
3. The permittee shall maintain records documenting the use of nonphotochemically reactive materials as defined in OAC rule 3745-21-01(C)(5).

**D. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the coating line employed more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 45 days.

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the coating line employed a coating that is determined to be a photochemically reactive material. The notification shall include a copy of such record and  
  
shall be sent to the Director (Ohio EPA, Northeast District Office) within 45 days.
3. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

**K001 -Paint Spray Booth #1**

1. **Emissions Limit:**

8 gallons per day coating

**Applicable Compliance Method:**

Compliance shall be based upon the record keeping specified in these Additional Special Terms and Conditions, section C.

2. **Emissions Limit:**

3.07 tons per year VOC

**Applicable Compliance Method:**

Compliance shall be based upon the record keeping specified in these Additional Special Terms and Conditions, section C.

3. **Emissions Limit:**

0.551 pounds per hour particulate

**Applicable Compliance Method:**

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

To determine the worst case emission rate for particulate matter, the following equation shall be used:

$$E \text{ (lb/hr)} = \text{Maximum coating solids usage rate (lb/hr.)} \times (1-TE) \times (1-CE)$$

Where: E = Particulate emission rate, in pounds per hour

TE = Transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of the coating solids used.

CE = Control Seff. of the control device.

4. **Emissions Limit:**

2.41 tons per year particulate

**Applicable Compliance Method:**

To determine the annual emission rate for particulate matter, the following equation shall be used:

$$E \text{ (tpy)} = \frac{\text{Annual usage rate} \times \text{Coating density} \times \% \text{ solids} \times (1-TE) \times (1-CE)}{2,000 \text{ pounds per ton}}$$

Where: E = Particulate emission rate, in tons per year

Annual usage rate of each coating, in gallons per year

Coating density of each coating, in pounds per gallon

% solids = Weight % of solids contained in each coating.

TE = Transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of the coating solids used.

CE = Control efficiency of the control equipment

12

Facility Name: **PRECISION POLYMER CASTING, LTD.**

Application Number: **02-2185**

Date: **July 22, 1998**

5. **Emission Limit:**

5% opacity

**Applicable Compliance Method:**

U.S. EPA reference method 9, if required by the Ohio EPA.