



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

50 West Town Street, Suite 700

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05983

Fac ID: 1409000699

DATE: 1/29/2008

Helwig Enterprises Inc.
Neil Helwig
5009 Cincinnati-Brookville Road
Shandon, OH 45063

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

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

CC: USEPA

HCDES



**Permit To Install
Terms and Conditions**

**Issue Date: 1/29/2008
Effective Date: 1/29/2008**

FINAL PERMIT TO INSTALL 14-05983

Application Number: 14-05983
Facility ID: 1409000699
Permit Fee: **\$1200**
Name of Facility: Helwig Enterprises Inc.
Person to Contact: Neil Helwig
Address: 5009 Cincinnati-Brookville Road
Shandon, OH 45063

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5009 Cincinnati-Brookville Road
Shandon, Ohio, Ohio**

Description of proposed emissions unit(s):
Installation of Two Spray and Hand Layup Stations for Fabrication of Fiberglass Parts.

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

Chris Korleski
Director

Helwig Enterprises Inc.
PTI Application: 14-05983
Issued: 1/29/2008

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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

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 (i.e., postmarked) quarterly 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

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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)

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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.

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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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	24.3
Individual HAP	9.9
Combined HAPs	24.9

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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 - (P002) - Spray and Hand Lay-up Station 1 for fabricating fiberglass parts

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)(b)	See term and condition A.2.b.
OAC rule 3745-31-05(C)	See term and condition A.2.a.
Synthetic Minor to Avoid 40 CFR Part 63 Subpart WWWW and Title V	For purposes of federal major stationary source applicability determinations, all annual organic compound emissions are considered volatile organic compound emissions.
OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall not exceed 8 pounds per hour and 40 pounds per day.

2. Additional Terms and Conditions

- 2.a The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P002 (Spray and Hand Lay-Up Station 1), P003 (Spray and Hand Lay-Up Station 2), P004 (Facility-Wide Cleanup Operations), other de minimus air contaminant source, as defined in OAC rule 3745-15-05, and other air contaminant sources exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC)

emissions from this air contaminant source because the calculated annual emission rate for VOC is less than ten tons per year, taking into account the federally enforceable rule emission limitation of 40 pounds per day of organic compounds under OAC rule 3745-21-07(G)(2).

B. Operational Restrictions

1. The permittee shall keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials.
2. The permittee shall utilize non-atomized application equipment for the spray application of coatings in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for the coating operation:
 - a. the company identification for each coating (resin or gel coat) employed;
 - b. the amount of each coating (resin or gel coat) employed, in pounds;
 - c. the styrene or organic compound content, recorded in percent weight, of each coating (resin or gel coat);
 - d. the total organic compound emission rate for all coatings (resin and gel coat), in pounds per day [the summation of (b) x (emission factor found in the Composite Fabricators Association Unified Emission Factors for Open Molding of Composites) for all resins and gel coats employed during the day];
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly organic compound emission rate for all coatings, i.e., (d)/(e), in pounds per hour (average).
2. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.a:
 - a. the company identification for each coating (resin and gel coat) employed;
 - b. the amount of each coating (resin and gel coat) employed, in pounds;

Emissions Unit ID: **P002**

- c. the HAP¹ content, recorded in percent by weight, of each coating (resin and gel coat);
- d. the total individual HAP emissions for each HAP from all organic materials employed, in pounds or tons per month [for each HAP, the product of (b) times (c) times the Composite Fabricators Unified Emission Factors for Open Molding of Composites for each liquid organic material];
- e. the updated rolling, 12-month summation for each individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding 11 months.
- f. the total combined HAP emissions from all liquid organic materials employed, in pounds per month; and
- g. the updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding 11 months.

¹ A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the HAPs contained in coatings and cleanup materials. This information does not have to be kept on an individual emissions unit basis.

3. The permit to install for emissions unit P002 (Spray and Hand Lay-Up Station 1) and emissions unit P003 (Spray and Hand Lay-Up Station 2) was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a

conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: styrene

TLV (mg/m³): 85.20

Maximum Hourly Emission Rate (lbs/hr): 16 (P002 and P003 combined)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 470.5

MAGLC (ug/m³): 2029

Emissions Unit ID: **P002**

The permittee, has demonstrated that emissions of styrene, from emissions units P002 and P003, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

4. Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

5. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

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

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. an identification of each day during which the average hourly organic compound emissions from the coatings exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - b. 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.

Emissions Unit ID: **P002**

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

2. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedance of the rolling, 12-month HAP emission limitations outlined in term and condition A.2.a. The report shall include a copy of each such record along with corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period, then a report is required stating so.

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

3. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations:

OC emissions shall not exceed 8 pounds per hour and 40 pounds per day.

Applicable Compliance Method:

Compliance with the OC emission limitations for this emissions unit shall be demonstrated by the record keeping required in term and condition C.1 using the most recent emissions factors from the Unified Emissions Factors for Open Molding of Composites published by the Composite Fabricators Association (CFA). The appropriate emissions factors are based on the percent styrene and methyl methacrylate in the coating, by weight, and the method of coating application.

Allowable annual OC/VOC emissions were determined to be less than 10 TPY based on 8 pounds of OC per hour x 8760 hours/year divided by 2000 pounds

per ton = 7.3 TPY OC.

b. Emissions Limitation:

Facility-wide HAP emissions shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations shall be demonstrated by the record keeping requirements specified in term and condition C.2.

2. Formulation data or U.S. EPA method 24 (for coatings) shall be used to determine the OC contents of the materials employed in this emissions unit.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.2, D.1 - D.2, 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 - (P003) - Spray and Hand Lay-up Station 2 for fabricating fiberglass parts

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)(b)	See term and condition A.2.b.
OAC rule 3745-31-05(C)	See term and condition A.2.a.
Synthetic Minor to Avoid 40 CFR Part 63 Subpart WWWW and Title V	For purposes of federal major stationary source applicability determinations, all annual organic compound emissions are considered volatile organic compound emissions.
OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall not exceed 8 pounds per hour and 40 pounds per day.

2. Additional Terms and Conditions

- 2.a The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P002 (Spray and Hand Lay-Up Station 1), P003 (Spray and Hand Lay-Up Station 2), P004 (Facility-Wide Cleanup Operations), other de minimus air contaminant source, as defined in OAC rule 3745-15-05, and other air contaminant sources exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC)

emissions from this air contaminant source because the calculated annual emission rate for VOC is less than ten tons per year, taking into account the federally enforceable rule emission limitation of 40 pounds per day of organic compounds under OAC rule 3745-21-07(G)(2).

B. Operational Restrictions

1. The permittee shall keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials.
2. The permittee shall utilize non-atomized application equipment for the spray application of coatings in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for the coating operation:
 - a. the company identification for each coating (resin or gel coat) employed;
 - b. the amount of each coating (resin or gel coat) employed, in pounds;
 - c. the styrene or organic compound content, recorded in percent weight, of each coating (resin or gel coat);
 - d. the total organic compound emission rate for all coatings (resin and gel coat), in pounds per day [the summation of (b) x (emission factor found in the Composite Fabricators Association Unified Emission Factors for Open Molding of Composites) for all resins and gel coats employed during the day];
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly organic compound emission rate for all coatings, i.e., (d)/(e), in pounds per hour (average).
2. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.a:
 - a. the company identification for each coating (resin and gel coat) employed;
 - b. the amount of each coating (resin and gel coat) employed, in pounds;

- c. the HAP¹ content, recorded in percent by weight, of each coating (resin and gel coat);
- d. the total individual HAP emissions for each HAP from all organic materials employed, in pounds or tons per month [for each HAP, the product of (b) times (c) times the Composite Fabricators Unified Emission Factors for Open Molding of Composites for each liquid organic material];
- e. the updated rolling, 12-month summation for each individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding 11 months.
- f. the total combined HAP emissions from all liquid organic materials employed, in pounds per month; and
- g. the updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding 11 months.

¹ A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the HAPs contained in coatings and cleanup materials. This information does not have to be kept on an individual emissions unit basis.

3. The permit to install for emissions unit P002 (Spray and Hand Lay-Up Station 1) and emissions unit P003 (Spray and Hand Lay-Up Station 2) was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a

conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: styrene

TLV (mg/m³): 85,202

Maximum Hourly Emission Rate (lbs/hr): 16 (P002 and P003 combined)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 470.5

MAGLC (ug/m³): 2029

Emissions Unit ID: **P003**

The permittee, has demonstrated that emissions of styrene, from emissions units P002 and P003, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

4. Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

5. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

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

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. an identification of each day during which the average hourly organic compound emissions from the coatings exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - b. 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.

The quarterly deviation reports shall be submitted in accordance with the General

Emissions Unit ID: **P003**

Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedance of the rolling, 12-month HAP emission limitations outlined in term and condition A.2.a. The report shall include a copy of each such record along with corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period, then a report is required stating so.

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

3. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

OC emissions shall not exceed 8 pounds per hour and 40 pounds per day.

Applicable Compliance Method:

Compliance with the OC emission limitations for this emissions unit shall be demonstrated by the record keeping required in term and condition C.1 using the most recent emissions factors from the Unified Emissions Factors for Open Molding of Composites published by the Composite Fabricators Association (CFA). The appropriate emissions factors are based on the percent styrene and methyl methacrylate in the coating, by weight, and the method of coating application.

Allowable annual OC/VOC emissions were determined to be less than 10 TPY based on 8 pounds of OC per hour x 8760 hours/year divided by 2000 pounds per ton = 7.3 TPY OC.

b. Emissions Limitation:

Facility-wide HAP emissions shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations shall be demonstrated by the record keeping requirements specified in term and condition C.2.

2. Formulation data or U.S. EPA method 24 (for coatings) shall be used to determine the OC contents of the materials employed in this emissions unit.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.2, D.1 - D.2, 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 - (P004) - Facility-wide Cleanup Operations

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	See terms and conditions A.2.a. and A.2.b.
OAC rule 3745-21-07(G)	Exempt based on the use of non-photochemically reactive materials. See term and condition A.2.c.

2. Additional Terms and Conditions

- 2.a Permit to Install 14-05983 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for VOC emissions:
 - i. the maximum annual cleanup material usage shall not exceed 2,300 gallons per year, and
 - ii. the maximum organic compound (OC) content of solvent used for cleanup shall not exceed 8.43 pounds of OC per gallon of solvent.
- 2.b The permittee shall not employ cleanup materials containing hazardous air pollutants (HAPs) in this emissions unit.
- 2.c The use of photochemically reactive cleanup material as defined in OAC rule 3745-21-01(C)(5) is prohibited.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for facility-wide cleanup:
 - a. the company identification for each cleanup material employed;
 - b. the number of gallons of each cleanup material employed;
 - c. the organic compound content of each cleanup material, in pounds per gallon;
 - d. documentation on whether or not each organic cleanup material is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5); and
 - e. documentation on whether or not each cleanup material contains a HAP¹ as identified in Section 112(b) of Title III of the Clean Air Act.

[Note: The definitions of "photochemically reactive" and "nonphotochemically reactive" are based upon OAC rule 3745-21-01(C)(5).]

¹ A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the HAPs contained in coatings and cleanup materials.

2. The annual cleanup material usage shall be determined by summing the monthly usage listed in term C.1.b.

D. Reporting Requirements

1. The permittee shall submit an annual report which specifies the type(s) and total cleanup material usage, in gallons. These reports shall be submitted by January 31 of each year.
2. The permittee shall notify the Hamilton County Department of Environmental Services of the use of any photochemically reactive materials or any HAP materials in this emissions unit. If no deviations occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 shall be determined by the following methods:

Emission Limitations:

Voluntary restrictions which maintain the VOC emissions to less than 10 tons per year.

Applicable Compliance Method:

The annual VOC emissions voluntary restriction established through OAC rule 3745-31-05(C) was developed from the following equation using the information submitted by the permittee in PTI Application 14-05983, submitted on August 29, 2007:

$2300 \text{ gal cleanup solvent/yr} \times 8.43 \text{ lbs OC/gal cleanup solvent} \times 1 \text{ Ton}/2000 \text{ lbs} = 9.7 \text{ TPY OC from cleanup operations,}$

Where,
All OC emissions are considered to be VOC emissions.

Compliance with the voluntary emission limitation shall be determined by the record keeping requirements specified in terms and conditions C.1. and C.2.

2. Formulation data or U.S. EPA method 24 (for coatings) shall be used to determine the OC contents of the materials employed in this emissions unit.

F. Miscellaneous Requirements

None

Emissions Unit ID: **P004**

SIC CODE 2821 SCC CODE 3-08-00-723 EMISSIONS UNIT ID P002

EMISSIONS UNIT DESCRIPTION Spray and hand layup station for fiberglass parts

DATE INSTALLED May 2007

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					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	nonattainment	8 lbs/hr 40 lbs.day	7.3	8 lbs/hr 40 lbs/day	7.3
Nitrogen Oxides					
Carbon Monoxide					
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?

BAT not applicable < 10 TPY.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

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

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants 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

Emissions Unit ID: **P004**

SIC CODE 2821 SCC CODE 3-08-00-723 EMISSIONS UNIT ID P003
 EMISSIONS UNIT DESCRIPTION Spray and hand layup station for fiberglass parts
 DATE INSTALLED May 2007

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					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	nonattainment	8 lbs/hr 40 lbs/day	7.3	8 lbs/hr 40 lbs/day	7.3
Nitrogen Oxides					
Carbon Monoxide					
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?

BAT not applicable < 10 TPY.

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

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants 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

Helwig Enterprises Inc.
PTI Application Number: 14-05983

Facility ID: 1409000699

Emissions Unit ID: **P004**

SIC CODE 2821 SCC CODE 3-08-00-703 EMISSIONS UNIT ID P004
 EMISSIONS UNIT DESCRIPTION Facility-wide Cleanup Operations
 DATE INSTALLED May 2007

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					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	nonattainment		9.70		9.70
Nitrogen Oxides					
Carbon Monoxide					
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?

BAT not applicable < 10 TPY.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____