

Facility ID: 1576051531 Issuance type: Draft State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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[Go to Part II for Emissions Unit P002](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1576051531 Emissions Unit ID: P001 Issuance type: Draft State Permit To Operate

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Part II - Special Terms and Conditions

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Spray-up booth using gelcoat and chopper gun resin	OAC rule 3745-35-07	The maximum annual combined styrene emissions generated by emissions units P001 and P002 shall not exceed 9.7 tons per year, based on a rolling, 365-day summation of emissions.
	OAC rule 3745-21-07(G)(2)	See section A.2.c. Organic compound (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day, excluding cleanup. See section B.1.
	OAC rule 3745-31-05(A)(3) PTI 15-0279	See section A.2.b.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11 (Table I)	Particulate emissions shall not exceed 0.551 lb/hr.

2. Additional Terms and Conditions

- (a) By request of the applicant and pursuant to OAC rule 3745-35-07, the following listed Special Terms & Conditions are federally enforceable and incorporated into this permit to limit the potential to emit for this emissions unit (P001) in combination with emissions unit P002:

STC No. A.2.a, A.2.b, A.2.c, B, C, D, & E.
 This emissions unit shall employ arrestor pads for the control of overspray.
 The styrene content of each gelcoat shall not exceed 41%, by weight, as employed.

The styrene content of each chopper gun resin shall not exceed 33%, by weight, as employed.

B. Operational Restrictions

1. Only acetone and/or super flush, consisting of 29% dimethyl glutarate, 9% oxybispropanolmethylether, 9% dimethyl adipate and 9% dimethyl succinate, by volume, shall be used as cleanup materials in this emissions unit. These cleanup materials are not photochemically reactive materials.
2. The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day for emissions unit P001:
 - the name and company identification number of each chopper gun resin, gelcoat and cleanup material employed;
 - the number of pounds of each chopper gun resin and gelcoat employed;
 - the percent styrene of each chopper gun resin and gelcoat employed in this emissions unit;
 - the number of gallons of acetone and super flush employed;
 - the organic compound content of acetone and super flush, in pounds per gallon;
 - the total organic compound emission rate for all chopper gun resins and gelcoats employed, in pounds per day;

To calculate emissions from chopper gun resin spray gun (lay-up) operations and gelcoat operations, the permittee shall employ the following formula:

$$E(\text{chopper gun resin or gelcoat}) = \text{summation of } (W_i \times EFi)$$

where

$E(\text{chopper gun resin or gelcoat})$ = the daily organic compound emissions from all lay-up materials (chopper gun resins) or gelcoat, in pounds per day.

i = subscript denoting a specific lay-up material (chopper gun resin) or gelcoat employed.

W_i = the weight of lay-up material (chopper gun resin) or gelcoat " i " employed, in tons per day (pounds per day divided by 2000 pounds per ton).

EF_i = the emission factor for styrene emissions*, in pounds per ton, from lay-up material (chopper gun resin) " i " = 111 lbs styrene/ton resin at 33% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 460 lbs styrene/ton gelcoat at 41% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 258 lbs styrene/ton gelcoat at 29% styrene.

* This emission factor is based on the styrene content of the resin and the mechanical application type (mechanical atomized), calculated in accordance with Table 3 of "Unified Emission Factor (UEF) for Open Molding of Composites", updated July 23, 2001, and "Technical Discussion of the Unified Emission Factors for Open Molding of Composites", 4/7/99, by Robert A. Haberlein, Ph.D, QEP. This source of emission factors may be revised in the future and is under review by the USEPA's Emission Factors and Inventory Group, to possibly replace existing AP-42 factors for styrene emissions from resin/gelcoat applications.

the total styrene emission rate for all chopper gun resins and gelcoats, in pounds per day;

the total acetone and super flush emission rate, in pounds per day;

the total number of hours the emissions unit was in operation; and

the average hourly organic compound emission rate for all chopper gun resins and gelcoats, in pounds per hour (f/i).

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

2. The permittee shall collect and record the following information each day for emissions units P001 and P002 combined:

the company identification of each casting resin, chopper gun resin and gelcoat employed;

the amount, in pounds, of each casting resin, chopper gun resin and gelcoat employed;

the styrene content, in percent by weight, of each casting resin, chopper gun resin and gelcoat;

the total combined styrene emission rate for all casting resins, chopper gun resins and gelcoats employed;

To calculate emissions from chopper gun resin operations and gelcoat operations, the permittee shall employ the following formula:

$$E(\text{chopper gun resin or gelcoat}) = \text{summation of } (W_i \times EFi)$$

where

$E(\text{chopper gun resin or gelcoat})$ = the daily organic compound emissions from all chopper gun resins or gelcoat, in pounds per day.

i = subscript denoting a specific chopper gun resin or gelcoat employed.

W_i = the weight of chopper gun resin or gelcoat " i " employed, in tons per day (pounds per day divided by 2000 pounds per ton).

EF_i = the emission factor for styrene emissions*, in pounds per ton, from chopper gun resin " i " = 111 lbs styrene/ton resin at 33% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 460 lbs styrene/ton gelcoat at 41% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 258 lbs styrene/ton gelcoat at 29% styrene.

* This emission factor is based on the styrene content of the resin and the mechanical application type (mechanical atomized), calculated in accordance with Table 3 of "Unified Emission Factor (UEF) for Open Molding of Composites", updated July 23, 2001, and "Technical Discussion of the Unified Emission Factors for Open Molding of Composites", 4/7/99, by Robert A. Haberlein, Ph.D, QEP. This source of emission factors may be revised in the future and is under review by the USEPA's Emission Factors and Inventory Group, to possibly replace existing AP-42 factors for styrene emissions from resin/gel coat application.

To calculate emissions from casting resins, the permittee shall employ the following formula from AP-42 4.4 1/95:

The permittee uses a casting resin containing 35% styrene, by weight. The emission factor is 0.03; therefore:

$$\text{pounds resin/day} \times 0.35 \times 0.03 = \text{pounds styrene/day}$$

the total combined styrene emission rate for all casting resins, chopper gun resins and gelcoats employed, in pounds per day; and

the total combined rolling, 365-day summation of styrene emissions, in tons per year.

3. The permittee shall maintain a record of whenever the dry exhaust filtration system is not employed when the emissions unit is in operation.
4. For further information regarding records retention requirements, see General Terms and Conditions Part I.4.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information for emissions unit P001:
 - an identification of each day during which the hourly organic compound emission rate from the chopper gun resins and gelcoat exceeded 8 pounds per hour, and the actual hourly organic compound emission rate from each such day;
 - an identification of each day during which the organic compound emission rate from the chopper gun resins and gelcoat exceeded 40 pounds per day, and the actual organic compound emission rate for each such day;
 - an identification of all exceedances of the 33%, by weight, styrene content limitation for the chopper gun resins employed in this emissions unit; and
 - an identification of all exceedances of the 41%, by weight, styrene content limitation for the gelcoats employed in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 365-day styrene emission limitation for emissions units P001 and P002 combined.
3. The permittee shall notify the Canton local air agency in writing, of any monthly record showing the use of any cleanup material other than acetone or super flush. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days following the end of the calendar month.
4. The permittee shall notify the Canton local air agency in writing of any record showing the dry exhaust filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. For further information regarding the reporting requirements, see General Term and Condition Part I.3.

E. Testing Requirements

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

Emissions Limitation:
Organic compound (OC) emissions shall not exceed 40 lbs/day, excluding cleanup.

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements in section C.1.

Emissions Limitation:
Organic compound (OC) emissions shall not exceed 8 lbs/hr, excluding cleanup.

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements in section C.1.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission testing performed in accordance with U.S. EPA Method 18, 25, or 25A, as appropriate.

Emissions Limitation:
The maximum annual combined styrene emissions generated by emissions units P001 and P002 shall not exceed 9.7 tons per year, based on a rolling, 365-day summation of emissions.

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements in section C.2.

Emissions Limitation:
Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

Emissions Limitation:
Particulate emissions shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
To determine the actual worst case emission rate for particulate matter, the following equation may be used:

$$E = [\text{maximum coating solids usage rate (in pounds per hour)}] \times (1-TE) \times (1-CE)$$

E = particulate emissions rate (lbs/hr)

TE = transfer efficiency = 70%, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = control efficiency = 95% (both the dry exhaust filtration system)

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

F. Miscellaneous Requirements

1. None

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Facility ID: 1576051531 Emissions Unit ID: P002 Issuance type: Draft State Permit To Operate

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Part II - Special Terms and Conditions

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Casting resin	OAC rule 3745-35-07	The maximum annual combined styrene emissions generated by emissions units P001 and P002 shall not exceed 9.7 tons per year, based on a rolling, 365-day summation of emissions.
		See section A.2.c.
	OAC rule 3745-21-07(G)(2)	Organic compound (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day, excluding cleanup. See section B.1.
	OAC rule 3745-31-05(A)(3) PTI 15-0280	See section A.2.b.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11 (Table I)	Particulate emissions shall not exceed 0.551 lb/hr.

2. Additional Terms and Conditions

- (a) By request of the applicant and pursuant to OAC rule 3745-35-07, the following listed Special Terms & Conditions are federally enforceable and incorporated into this permit to limit the potential to emit for this emissions unit (P002) in combination with emissions unit P001:

STC No. A.2.a, A.2.b, A.2.c, B, C, D, & E.
This emissions unit shall employ arrestor pads for the control of overspray.
The styrene content of each casting resin utilized in this process shall not exceed 35%, by weight, as employed.

B. Operational Restrictions

1. Only acetone and/or super flush, consisting of 29% dimethyl glutarate, 9% oxybispropanolmethylether, 9% dimethyl adipate and 9% dimethyl succinate, by volume, shall be used as cleanup materials in this emissions unit. These cleanup materials are not photochemically reactive materials.
2. The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day for emissions unit P002:
 - the name and company identification number of each casting resin and cleanup material employed;
 - the number of pounds of each casting resin employed;
 - the percent styrene of each casting resin employed;
 - the number of gallons of acetone and super flush employed;
 - the organic compound content of acetone and super flush, in pounds per gallon;
 - the total organic compounds emission rate for all casting resins, in pounds per day;

To calculate emissions from casting resins, the permittee shall employ the following formula from AP-42 4.4 1/95:

The permittee uses a casting resin containing 35% styrene, by weight. The emissions factor is 0.03; therefore:

 - pounds casting resin/day x 0.35 x 0.03 = pounds styrene/day
 - the total styrene emission rate for all casting resins, in pounds per day;
 - the total acetone and super flush emission rate, in pounds per day;
 - the total number of hours the emissions unit was in operation; and

the average hourly organic compound emission rate for all casting resins, in pounds per hour (*ffi*).

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

2. The permittee shall collect and record the following information each day for emissions units P001 and P002 combined:
 - the company identification of each casting resin, chopper gun resin and gelcoat employed;
 - the amount, in pounds, of each casting resin, chopper gun resin and gelcoat employed;
 - the organic compound content as styrene, in percent by weight, of each casting resin, chopper gun resin and gelcoat;
 - the total combined styrene emission rate for all casting resins, chopper gun resins and gelcoats employed;

To calculate emissions from chopper gun resin operations and gelcoat operations, the permittee shall employ the following formula:

$$E(\text{chopper gun resin or gelcoat}) = \text{summation of } (W_i \times EFi)$$

where

$E(\text{chopper gun resin or gelcoat})$ = the daily organic compound emissions from all chopper gun resins or gelcoat, in pounds per day.

i = subscript denoting a specific chopper gun resin or gelcoat employed.

W_i = the weight of chopper gun resin or gelcoat " i " employed, in tons per day (pounds per day divided by 2000 pounds per ton).

EF_i = the emission factor for styrene emissions*, in pounds per ton, from chopper gun resin " i " = 111 lbs styrene/ton resin at 33% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 460 lbs styrene/ton gelcoat at 41% styrene.

EF_i = the emission factor for styrene emissions*, in pounds per ton, from gelcoat " i " = 258 lbs styrene/ton gelcoat at 29% styrene.

* This emission factor is based on the styrene content of the resin and the mechanical application type (mechanical atomized), calculated in accordance with Table 3 of "Unified Emission Factor (UEF) for Open Molding of Composites", updated July 23, 2001, and "Technical Discussion of the Unified Emission Factors for Open Molding of Composites", 4/7/99, by Robert A. Haberlein, Ph.D, QEP. This source of emission factors may be revised in the future and is under review by the USEPA's Emission Factors and Inventory Group, to possibly replace existing AP-42 factors for styrene emissions from resin/gel coat application.

To calculate emissions from casting resins, the permittee shall employ the following formula from AP-42 4.4 1/95:

The permittee uses a casting resin containing 35% styrene, by weight. The emission factor is 0.03; therefore:

pounds resin/day x 0.35 x 0.03 = pounds styrene/day
 the total combined styrene emission rate for all casting resins, chopper gun resins and gelcoats employed, in pounds per day; and
 the total combined rolling, 365-day summation of styrene emissions, in tons per year.

3. The permittee shall maintain a record of whenever the dry exhaust filtration system is not employed when the emissions unit is in operation.
4. For further information regarding records retention requirements, see General Terms and Conditions Part I.4.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information for emissions unit P002:
 - an identification of each day during which the hourly organic compound emission rate from the casting resins exceeded 8 pounds per hour, and the actual hourly organic compound emissions from each such day;
 - an identification of each day during which the organic compound emissions rate from the casting resins exceeded 40 pounds per day, and the actual organic compound emission rate for each such day; and
 - an identification of all exceedances of the 35%, by weight, styrene content limitation for the casting resins employed in this emissions unit.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 365-day styrene emission limitation for emissions units P001 and P002 combined.
3. The permittee shall notify the Canton local air agency in writing of any monthly record showing the use of any cleanup material other than acetone or super flush. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days following the end of the calendar month.
4. The permittee shall notify the Canton local air agency in writing of any record showing the dry exhaust filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. For further information regarding the reporting requirements, see General Term and Condition Part I.3.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - Emissions Limitation:
 - Organic compound (OC) emissions shall not exceed 40 lbs/day, excluding cleanup.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in section C.1.

Emissions Limitation:

Organic compound (OC) emissions shall not exceed 8 lbs/hr, excluding cleanup.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in section C.1.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission testing performed in accordance with U.S. EPA Method 18, 25, or 25A, as appropriate.

Emissions Limitation:

The maximum annual combined styrene emissions generated by emissions units P001 and P002 shall not exceed 9.7 tons per year, based on a rolling, 365-day summation of emissions.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in section C.2.

Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).

Emissions Limitation:

Particulate emissions shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

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

$$E = [\text{maximum coating solids usage rate (in pounds per hour)}] \times (1-TE) \times (1-CE)$$

$$E = \text{particulate emissions rate (lbs/hr)}$$

TE = transfer efficiency = 70%, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = control efficiency = 95% (both the dry exhaust filtration system)

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

F. Miscellaneous Requirements

1. None