

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

Permit To Install **04-01436**

A. Source Description

Comfort Line is a synthetic minor manufacturing facility located in Lucas county. This PTI is for a mixer, five pultrusion lines and a coating line. This facility produces fiberglass reinforced plastic composite parts via pultrusion for clients in the windows fabrication industry. The feedstock for these pultrusion lines is a resin paste containing a styrene monomer. The mixer and pultrusion lines are controlled for particulate emissions with a fabric filter system. The emissions for the coating line are controlled with a painting booth. Sources of emissions include:

Resin paste containing styrene monomer
Dry solid fillers
Composite dust from sawing operation
Paint coating
Clean-up with non-Hap, non-VOC material

B. Facility Emissions and Attainment Status

The existing facility is a minor source for all criteria air pollutants and is a minor source of VOC due to operational restrictions.

<u>Pollutant</u>	<u>Significant Net Emission Increase Levels</u>	<u>Attainment Status</u>
PM _{2.5}	250 TPY	attainment
PM ₁₀	250 TPY	unclassifiable
SO ₂	250 TPY	attainment
VOC	100 TPY	non-attainment
NO _x	250 TPY	unclassifiable/attainment
CO	250 TPY	unclassifiable/attainment

C. Applicable Rules/Regulations

OAC rule 3745-31-05(A)(3) BAT
OAC rule 3745-31-05(C) operational restriction to restrict emissions below major size cutoff
OAC rule 3745-21-07(G)(2) 8 lbs/hr & 40 lbs/day unless 85% overall OC control due to photochemically reactive resin usage.
OAC rule 3745-17-07(A) less stringent than BAT
OAC rule 3745-21-11(B) less stringent than BAT

BAT Determination

Limits on production to 8 lbs/hr, 40 lbs/day per emission unit for styrene and a facility limit of 10 tons/year in a rolling 12 month period on styrene or any HAP and 25.0 tons in a rolling 12 month period for any combination of HAP. Required venting to stack on all styrene emissions to meet MAGLC.

Particulate emissions of mixer and pultrusion cut-off saw to be vented to fabric filter bag house. Coating operation has a limit of 0.16 pounds HAP per pound of solids applied and dry filtration for particulate control.

D. Source Emissions

Comfort Line is taking an operational restriction of less than 8.0 pounds per hour, 40.0 pounds per day for each emission unit for organic compounds and less than 10.0 tons per year per HAP and 25.00 tons per year for any combination of HAP to restrict emissions below major size cutoff. All reported emissions are based on PTE.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
LUCAS COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov. Center

Application No: 04-01436

Fac ID: 0448011664

DATE: 3/9/2006

Comfort Line Ltd
Robert Spanns
5500 Enterprise Blvd
Toledo, OH 43612

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$2800** will be due. Please do not submit any payment now.

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

Sincerely,

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

CC: USEPA

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Toledo Met Area Council of Govs

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LUCAS COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 04-01436 FOR AN AIR CONTAMINANT SOURCE FOR
Comfort Line Ltd**

On 3/9/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Comfort Line Ltd**, located at **5500 Enterprise Blvd, Toledo, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 04-01436:

Modification of existing pultrusion lines and adding of three new pultrusion lines.

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

Karen Granata, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43602
[(419)936-3015]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 04-01436

Application Number: 04-01436
Facility ID: 0448011664
Permit Fee: **To be entered upon final issuance**
Name of Facility: Comfort Line Ltd
Person to Contact: Robert Spanns
Address: 5500 Enterprise Blvd
Toledo, OH 43612

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5500 Enterprise Blvd
Toledo, Ohio**

Description of proposed emissions unit(s):
Modifaction of existing pultrusion lines and adding of three new pultrusion lines.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Comfort Line Ltd

PTI Application: 04-01436

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Part I - GENERAL TERMS AND CONDITIONS

Facility ID: 0448011664

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

Comfort Line Ltd**Facility ID: 0448011664****PTI Application: 04-01436****Issued: To be entered upon final issuance**

conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

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Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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Comfort Line Ltd

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Facility ID: 0448011664

Emissions Unit ID: **K001**

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>
PM	0.5
VOC	72.7
OC	99.7
HAP (individual)	9.9
HAP (total)	24.9

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Coating Line for fiberglass reinforced pultruded styrene resin	OAC rule 3745-31-05(A)(3)	Organic compounds (OC) emissions from coatings employed shall not exceed 6 lbs/hr and 26.28 tons/year.
		OC emissions from line cleanup shall not exceed 104.9 lb/month and 0.63 ton/year.
		Particulate emissions (PE) shall not exceed 0.043 lb/hr and 0.19 ton/year.
		Visible emissions (VE) from this emissions unit shall not exceed 0% opacity as a 6-minute average.
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-17-07(A)(1)	see section B.2
	OAC rule 3745-17-11(B)(1)	see section A.2.a
	OAC rule 3745-21-07(G)(9)(f)	Exemption from OAC rule 3745-21-07(G)(2) emission limitations due to usage of non-photochemically reactive

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PTI A**Emissions Unit ID: **K001****Issued: To be entered upon final issuance**

materials.

See section B.2.

2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The emission limitations specified by this rule are equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)

B. Operational Restrictions

- 1. The permittee shall operate the paint booth fabric filter system whenever this emissions unit is in operation.
- 2. Coatings, reduction solvents and/or cleanup solvents that are Photochemically Reactive Materials as defined in OAC rule 3745-21-01(C)(5) shall not be used in this emission unit.
- 3. Cleanup solvent shall not contain HAP.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall collect and record the following information for the coating operation:
 - a. the company identification for each coating and reduction solvent, including verification that the coating as applied is not a photochemically reactive material and contains no HAP;
 - b. the number of gallons of each coating employed for each day, as applied;
 - c. the organic compound content of each coating employed, in pounds per gallon as applied;
 - d. The total organic compound emission rate for all coatings as applied, in pounds per day;
 - e. The total number of hours the emissions unit was in operation each day; and

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- f. The individual HAP and total HAP content of each coating in pounds per gallon as applied;
 - g. for each month, the following information on cleanup solvent:
 - i. the company identification for each cleanup material used;
 - ii. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - iii. the gallons of cleanup material used per month;
 - iv. the pounds of OC per gallon of cleanup material;
 - v. the gallons of spent cleanup material recovered for disposal;
 - vi. the pounds of OC per gallon of spent cleanup material; and
 - vii. the pounds per month of OC emissions from cleanup.
 - h. For each year, the tons of OC emitted from coating and cleanup.
2. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
3. The permit to install for this emissions unit [K001] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl amyl ketone (MAK)
TLV (mg/m3): 233.50
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 626.2
MAGLC (ug/m3): 5,560
4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the

Emissions Unit ID: **K001**

"Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change.

Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model

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runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. any day during which a photochemically reactive material was employed;
 - b. any day during which a HAP-containing material was employed and the individual HAP emissions for each such day; and
 - c. any exceedance of OC emission limits for coating and cleanup.

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

2. The permittee shall also submit annual reports that specify the total organic compound emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.

E. Testing Requirements

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

1. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the

Emissions Unit ID: **K001**

procedures specified in OAC rule 3745-17-03(B)(1).

2. Emission Limitation:

26.28 tons/year of organic compounds from coating materials employed

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.a-e. Limitation based on maximum coating usage based on PTE reported in PTI application.

3. Emission Limitation:

0.043 lb PE/hour

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.1.c, C.1.d and C.1.e. Limitation based on maximum emission rate based on PTE. Compliance shall be determined based upon the following equation:

$$PE = VOL(OS)(SOL)(1 - CE) = (1.2)(0.4)(9.0)(1 - 0.99) = 0.043 \text{ lbs PE/hr}$$

where:

PE = particulate emissions from coating operation; summed over all coatings used

VOL = volume of coating used per hour in gallons, (derived from C.1) d/c

SOL = solids in coating in lbs/gal as reported in C.1.e

OS = overspray amount in coating operation is 40%, as specified in the permit application

CE = efficiency of PE control device is 99.0%, or 0.99, as specified in the permit application.

4. Emission Limitation:

0.19 ton PE/year

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Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.043 lb/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton. Therefore, compliance with the hourly emission limitation serves as demonstration of compliance for the annual emission limitation.

5. Emission Limitation:

6.0 lbs OC/hr from coatings, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions by the number of actual hours that the emissions unit was in operation that day as recorded in Section C.1.d and C.1.e.

6. Emission Limitation:

104.9 lbs OC/month from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.1. f. Compliance shall be determined based upon the following equation:

$$E_s = V_s * C_s - V_w * C_w, \text{ where:}$$

E_s = The pounds of OC emissions from cleanup per month.

V_s = The gallons of cleanup solvent used per month.

C_s = The pounds of OC per gallon of cleanup solvent.

V_w = The gallons of spent cleanup solvent recovered for waste disposal.

C_w = The pounds of OC per gallon of spent cleanup solvent.

7. Emission Limitation:

0.63 ton/yr from cleanup materials

Applicable Compliance Method:

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Emissions Unit ID: **K001**

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The annual emissions limitation was based on the monthly limit (104.9 pounds OC per month) multiplied by 12 months per year and divided by 2000 pounds per ton. Therefore, compliance with the monthly emission limitation serves as demonstration of compliance for the annual emission limitation.

F. Miscellaneous Requirements

None

Emissions Unit ID: **K001**

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K002 - Coating Line for fiberglass reinforced pultruded styrene resin	OAC rule 3745-31-05(A)(3)	Organic Compounds (OC) emissions from coatings shall not exceed 1.44 lbs/hr and 6.31 tons/year. OC emissions from line cleanup shall not exceed 46.5 lbs/month and 0.28 ton/yr. Particulate emissions (PE) shall not exceed 0.01 lb/hr and 0.04 ton/year. Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average.
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-31-05(C)	see section B.2
	OAC rule 3745-17-07(A)(1)	see section A.2.a
	OAC rule 3745-17-11(B)(1)	see section A.2.a

2. Additional Terms and Conditions

- 2.a The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)

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Issued: To be entered upon final issuance

Emissions Unit ID: **K001**

- 2.b** The emission limitations specified by this rule are equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)

Issued: To be entered upon final issuance**B. Operational Restrictions**

1. The permittee shall operate the paint booth fabric filter system whenever this emissions unit is in operation.
2. The combined emissions from all emissions units at this facility shall not exceed 9.9 tons per rolling 12-month period of any individual hazardous air pollutant and 24.9 tons of total hazardous air pollutants per rolling 12-month period.
3. Cleanup solvents that are Photochemically Reactive Materials as defined in OAC rule 3745-21-01(C)(5) shall not be used in this emission unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for the coating operation:
 - a. the company identification for each coating and reduction solvent.
 - b. the number of gallons of each coating employed for each day, as applied;
 - c. the organic compound content of each coating in pounds per gallon as applied;
 - d. The total organic compound emission rate for all coatings as applied, in pounds per day;
 - e. The total number of hours the emissions unit was in operation each day; and
 - f. The individual HAP and total HAP content of each coating in pounds per gallon as applied
 - g. for each month, the following information on cleanup solvent:
 - i. the company identification for each cleanup solvent used, to verify it is not a photochemically reactive material;
 - ii. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - iii. the gallons of cleanup solvent used per month;
 - iv. the pounds of OC per gallon of cleanup solvent;
 - v. the gallons of spent cleanup solvent recovered for disposal;

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- vi. the pounds of OC per gallon of spent cleanup solvent; and
 - vii. the pounds per month of OC emissions from cleanup.
- h. For each year, the tons of OC emitted from coating and cleanup.

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2. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
3. The permit to install for this emissions unit [K002] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl amyl ketone (MAK)

TLV (mg/m³): 233.50

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 626.2

MAGLC (ug/m³): 5,560

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was

proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. any exceedance of OC emission limits for coating and cleanup;
 - b. any day during which a HAP-containing material was employed and the individual HAP emissions for each such day; and
 - c. any time a photochemically reactive material is used as a cleanup solvent.

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

2. The permittee shall also submit annual reports that specify the total organic compound emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.

E. Testing Requirements

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

1. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(1).

2. Emission Limitation:

6.31 tons/year of organic compounds from coatings

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.a-e. Limitation based on maximum coating usage based on PTE reported in PTI application.

3. Emission Limitation:

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0.01 lb PE/hour

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.1.c, C.1.d and C.1.e. Limitation based on maximum emission rate based on PTE. Compliance shall be determined based upon the following equation:

$$PE = VOL(OS)(SOL)(1 - CE) = (0.24)(0.4)(10.0)(1 - 0.99) = 0.01 \text{ lb PE/hr}$$

where:

PE = particulate emissions from coating operation; summed over all coatings used

VOL = volume of coating used per hour in gallons, (derived from C.1) d/c

SOL = solids in coating in lbs/gal as reported in C.1.e

OS = overspray amount in coating operation is 40%, as specified in the permit application

CE = efficiency of PE control device is 99.0%, or 0.99, as specified in the permit application.

4. Emission Limitation:

0.04 ton PE/year

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Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.01 lb/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton. Therefore, compliance with the hourly emission limitation serves as demonstration of compliance for the annual emission limitation.

5. Emission Limitation:

1.44 lbs OC/hr from coatings, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions by the number of actual number of hours that the emissions unit was in operation for that day, as recorded in Section C.1d and C.1.e.

6. Emission Limitation:

46.51 lbs OC/month from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.1. f. Compliance shall be determined based upon the following equation:

$$E = V_s * C_s - V_w * C_w, \text{ where:}$$

E_s = The pounds of OC emissions from cleanup per month

V_s = The gallons of cleanup solvent used per month.

C_s = The pounds of OC per gallon of cleanup solvent.

V_w = The gallons of spent cleanup solvent recovered for waste disposal.

C_w = The pounds of OC per gallon of spent cleanup solvent.

7. Emission Limitation:

0.28 ton/yr for cleanup materials

Applicable Compliance Method:

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The annual emissions limitation was based on the monthly limit (46.51 pounds OC per month) multiplied by 12 months per year and divided by 2000 pounds per ton. Therefore, compliance with the monthly emission limitation serves as demonstration of compliance for the annual emission limitation.

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F. Miscellaneous Requirements

None

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-07(A)
P001 - Resin Blending Mixer 1	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(C)	
	OAC rule 3745-21-07(G)(2)	

Applicable Emissions
Limitations/Control Measures

Organic compound emissions, excluding emissions from non-photochemically reactive clean-up materials, shall not exceed 3.44 lbs/hr, 40 lbs/day, and 7.3 tons/year. See section A.2.b

Particulate emissions (PE) shall not exceed 0.06 lbs/hr and 0.22 tons/year.

Visible emissions (VE) from this emissions unit shall not exceed 0% opacity as a 6-minute average.

Organic compound emissions from clean-up materials from all mixing and pultrusion lines at the facility shall not exceed 2.18 tons/month and 26.14 tons/year.
See section B.2

see section B.3

see section A.2.a

see section A.2.a

see section A.2.a

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2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the mixing operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

- The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
- The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
- The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0
1-11	9.13	22.1

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After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for each resin employed (e.g., styrene);
 - b. the weight of each resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of each resin employed (e.g., styrene), in percent by weight;
 - d. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - e. the total OC emission rate for all resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - f. the actual number of hours that the emissions unit was in operation;
 - g. the average, hourly OC emission rate for all resins employed (e.g., styrene) ,

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- calculated by (e)/(f), in average, pounds per hour; and
- h. the daily and hourly (average) OC emissions rates are to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information for month (total plantwide, except for cleanup on coating lines:
 - a. the company identification for each cleanup material employed;
 - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - c. the volume of each cleanup material applied in gallons;
 - d. the OC content of each cleanup material applied in pounds per gallon;
 - e. the total OC emission rate for all cleanup material materials, in pounds per month, calculated as required in Section E.1.d.;
 - f. The combined total emission rate from all emission units for all cleanup material, except the coating lines, at this facility, in pounds per month (= usage, all is assumed to evaporate);
 - g. the monthly OC emission rate is to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
 4. The permit to install for this emissions unit [P001] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

Emissions Unit ID: P001

TLV (mg/m³): 85

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 221.4MAGLC (ug/m³): 2028.6

5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units a the facility. The permittee shall maintain a record including methods, procedures, and assumptions supporting the calculations.
 8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly OC emissions, excluding cleanup materials, from this emissions unit exceeded 3.44 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emission units located at this facility other than the coating lines, exceeded 2.18 tons per month facility wide, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the

Emissions Unit ID: P001

- actual OC and individual HAP emissions for each such month;
- e. an identification of each day during which an inspection was not performed by the required frequency; and
 - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
 3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

3.44 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the emissions unit was in operation, as recorded in Section C.2.f.
 - b. Emission Limitation:

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40 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b and C.2.c. Compliance shall be determined based upon the following equation:

$$EM(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC)$$

where:

$EM(OC)$ = OC emissions from the resin mix operations, in pounds per day.

W_i = the weight of resin mix i produced, as specified in Section C.2.b, in pounds per day.

OC_i = the OC content of mix i , as specified in Section C.2.c, in percent by weight.

$EF(OC)$ = the emissions factor from AP-42 Chapter 6.4, Table 6.4-1 (1/95) for VOC emissions from mixing acrylic varnish, which is 0.01 pounds per pound of available OC content.

c. Emission Limitation:

7.3 tons OC/year, excluding emissions from cleanup.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this resin mixing unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

d. Emission Limitation:

2.18 tons OC/month, from cleanup materials facility wide.

Applicable Compliance Method:

Emissions Unit ID: **P001**

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$

where:

$EC(OC) = \text{OC emissions from the cleanup materials, in pounds per month.}$

$V_i = \text{the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.}$

$OC_i = \text{the OC content of cleanup material } i, \text{ as specified in Section C.3.d, in pounds per gallon.}$

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility wide.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

0.06 lb PE/hr

Applicable Compliance Method:

Compliance shall be based upon the following equation:

$E(PE) = P \times \text{CONCsolid} \times EF(PE) \times (1-CE)$

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where:

P = maximum mix production rate, which is 1000 lbs/hr as noted in the permit application.

CONCsolid = maximum solids concentration in the mix, which is 625.0 lbs fillers/1000 lb batch as noted in the permit application.

EF(PE) = Emission factor of 0.01 as noted in AP-42 Chapter 6.4, Reference 4 to Table 6.4-1 (1/95).

CE = efficiency of PE control device is 99.0%, or 0.99, as specified in the permit application.

If required, the permittee shall demonstrate compliance using Method 5 of 40 Part CFR 60, Appendix A.

g. Emission Limitation:

0.22 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.06 lb/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton. Therefore, compliance with the hourly emission limitation serves as demonstration of compliance for the annual emission limitation.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

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None

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Emissions Unit ID: **P002**

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Pultrusion Line A equipped with a cut-off saw and a common baghouse.	OAC rule 3745-31-05	<p>Organic compound (OC) emissions shall not exceed 1.19 lbs/hr, 28.63 lbs/day and 5.2 tons/yr. See Section A.2.b.</p> <p>Particulate emissions (PE) shall not exceed 0.0018 lb/hr and 0.008 ton/year.</p> <p>Visible emissions (VE) from this emissions unit shall not exceed 0% opacity as a 6-minute average.</p> <p>Organic compound emissions from clean-up materials from all mixing and pultrusion lines at this facility shall not exceed 2.18 tons/month and 26.14 tons/year.</p>
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-17-07(A)	see section A.2.a
	OAC rule 3745-17-11(B)	

see section A.2.a

2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the resin bath operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
2. The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
3. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0

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1-11	9.13	22.1
1-12	9.9	24.9

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for resin employed (e.g., styrene);
 - b. the weight of resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of resin employed (e.g., styrene), in percent by weight;
 - d. the total OC emission rate for resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - e. the actual number of hours that the emissions unit was in operation;
 - f. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - g. the average, hourly OC emission rate for resin employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour; and

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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 221.4
MAGLC (ug/m3): 2028.6

5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units a the facility. The permittee shall maintain a record including methods, procedures, and assumptions supporting the calculations.
 8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly OC emissions, excluding cleanup materials, from this emissions unit exceeded 1.19 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 28.63 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials, exceeded 2.18 tons per month from all mixing and pultrusion lines at the facility, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
 - e. an identification of each day during which an inspection was not performed by the

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required frequency; and

- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
 3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
 4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

1.19 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the

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emissions unit was in operation, as recorded in Section C.2.e.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204 A through F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

28.63 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b & c. Compliance shall be determined based upon the following equation:

where:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$ = OC emissions as from all resin operations (e.g., styrene), in pounds per day.

W_i = the weight of resin i employed, as specified in C.2.b, in pounds per day.

OC_i = the OC content of resin i , as specified in C.2.c, in percent by weight.

$$EF(OC_i) = 0.04$$

For OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88))

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

c. Emission Limitation:

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7.3 tons OC/year, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this pultrusion unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

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d. Emission Limitation:

2.18 tons OC/month, from cleanup materials facility-wide from mixing and pultrusion lines.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$

where:

$EC(OC) = \text{OC emissions from the cleanup materials, in pounds per month.}$

$V_i = \text{the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.}$

$OC_i = \text{the OC content of cleanup material } i, \text{ as specified in Section C.3.d, in pounds per gallon.}$

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility-wide from mixing and pultrusion lines.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

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0.0018 lb PE/hr

Applicable Compliance Method:

Compliance is based on the following equation:

$$PE(SAW) = V(SC) \times CUT(MIN) \times DENSITY \times (1 - CE)$$

where:

PE(SAW) = particulate emission on cut-off saw on pultrusion line (lbs/hr)

V(SC) = volume of material removed by saw cut (cross sectional area x width of blade),
blade width (0.1875 in), cross sectional area (0.0625 ft²) totaling (0.001 ft³)

CUT(MIN)= 0.25 cuts/minute

DENSITY= 12 lb/ft³

CE= control efficiency (99%)

g. Emission Limitation:

0.008 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.0018 lb PE/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions

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observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - Pultrusion Line B equipped with a cut-off saw and a common baghouse	OAC rule 3745-31-05	Organic compound (OC) emissions shall not exceed 1.32 lbs/hr, 31.67 lbs/day and 5.78 tons/yr. See Section A.2.b. Particulate emissions (PE) shall not exceed 0.0021 lb/hr and 0.009 ton/year. Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average. Organic compound emissions from clean-up materials from all mixing and pultrusion lines at this facility shall not exceed 2.18 tons/month and 26.14 tons/year.
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-17-07(A)	see section A.2.a
	OAC rule 3745-17-11(B)	see section A.2.a

2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the resin bath operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
2. The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
3. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0
1-11	9.13	22.1
1-12	9.9	24.9

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After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for resin employed (e.g., styrene);
 - b. the weight of resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of resin employed (e.g., styrene), in percent by weight;
 - d. the total OC emission rate for resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - e. the actual number of hours that the emissions unit was in operation;
 - f. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - g. the average, hourly OC emission rate for resin employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour; and
 - h. the daily and hourly (average) OC emissions rates are to be calculated by no later than the first week of the following month from which information was

collected for this emissions unit.

3. The permittee shall collect and record the following information for month (total plantwide, except for cleanup on coating lines):
 - a. the company identification for each cleanup material employed;
 - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - c. the volume of each cleanup material applied in gallons;
 - d. the OC content of each cleanup material applied in pounds per gallon;
 - e. the total OC emission rate for all cleanup material materials, in pounds per month, calculated as required in Section E.1.d.;
 - f. The combined total emission rate from all emission units for all cleanup material, except the coating lines, at this facility, in pounds per month (= usage, all is assumed to evaporate);
 - g. the monthly OC emission rate is to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

4. The permit to install for this emissions unit [P003] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 221.4

MAGLC (ug/m³): 2028.6

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5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units at the facility. The permittee shall maintain a record including methods, procedures, and assumptions supporting the calculations.
8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.32 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the styrene emissions, excluding cleanup materials, from this emissions unit exceeded 31.67 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials, exceeded 2.18 tons per month from all mixing and pultrusion lines at the facility, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
 - e. an identification of each day during which an inspection was not performed by the required frequency; and

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- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

1.32 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the emissions unit was in operation, as recorded in Section C.2.e.

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If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204 A through F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

31.67 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b & c. Compliance shall be determined based upon the following equation:

where:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$ = OC emissions as from all resin operations (e.g., styrene), in pounds per day.

W_i = the weight of resin i employed, as specified in C.2.b, in pounds per day.

OC_i = the OC content of resin i , as specified in C.2.c, in percent by weight.

$EF(OC_i) = 0.04$
 For OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88))

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

c. Emission Limitation:

5.78 tons OC/year, excluding emissions from cleanup materials.

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Emissions Unit ID: **P003**

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this pultrusion unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

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d. Emission Limitation:

2.18 tons OC/month, from cleanup materials facility wide.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$$

where:

$EC(OC)$ = OC emissions from the cleanup materials, in pounds per month.

V_i = the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.

OC_i = the OC content of cleanup material i , as specified in Section C.3.d, in pounds per gallon.

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility wide.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

0.0021 lb PE/hr

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Applicable Compliance Method:

Compliance is based on the following equation:

$$PE(SAW) = V(SC) \times CUT(MIN) \times DENSITY \times (1 - CE)$$

where:

PE(SAW) = particulate emission on cut-off saw on pultrusion line (lbs/hr)

V(SC) = volume of material removed by saw cut (cross sectional area x width of blade),
blade width (0.1875 in), cross sectional area (0.0625 ft²) totaling (0.001 ft³)

CUT(MIN)= 0.292 cuts/minute

DENSITY= 12 lb/ft³

CE= control efficiency (99%)

g. Emission Limitation:

0.009 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.0021 lb PE/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P004 - Pultrusion Line C equipped with a cut-off saw and a common baghouse	OAC rule 3745-31-05	<p>Organic compound (OC) emissions shall not exceed 2.6 lbs/hr, 40.0 lbs/day and 7.3 tons/yr. See Section A.2.b.</p> <p>Particulate emissions (PE) shall not exceed 0.0021 lb/hr and 0.009 ton/year.</p> <p>Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average.</p> <p>Organic compound emissions from clean-up materials from all mixing and pultrusion lines at this facility shall not exceed 2.18 tons/month and 26.14 tons/year.</p>
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-17-07(A)	see section A.2.a
	OAC rule 3745-17-11(B)	see section A.2.a

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PTI A

Emissions Unit ID: **P004**

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2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the resin bath operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
2. The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
3. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0
1-11	9.13	22.1
1-12	9.9	24.9

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After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for resin employed (e.g., styrene);
 - b. the weight of resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of resin employed (e.g., styrene), in percent by weight;
 - d. the total OC emission rate for resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - e. the actual number of hours that the emissions unit was in operation;
 - f. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - g. the average, hourly OC emission rate for resin employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour; and
 - h. the daily and hourly (average) OC emissions rates are to be calculated by no later than the first week of the following month from which information was

collected for this emissions unit.

3. The permittee shall collect and record the following information for month (total plantwide, except for cleanup on coating lines):
 - a. the company identification for each cleanup material employed;
 - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - c. the volume of each cleanup material applied in gallons;
 - d. the OC content of each cleanup material applied in pounds per gallon;
 - e. the total OC emission rate for all cleanup material materials, in pounds per month, calculated as required in Section E.1.d.;
 - f. The combined total emission rate from all emission units for all cleanup material, except the coating lines, at this facility, in pounds per month (= usage, all is assumed to evaporate);
 - g. the monthly OC emission rate is to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

4. The permit to install for this emissions unit [P004] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 221.4

MAGLC (ug/m³): 2028.6

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5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units at the facility. The permittee shall maintain a record including methods, procedures, and assumption supporting the calculations.
8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 2.6 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the styrene emissions, excluding cleanup materials, from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials, exceeded 2.18 tons per month from all mixing and pultrusion lines at the facility, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
 - e. an identification of each day during which an inspection was not performed by the required frequency; and

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- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

2.6 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the emissions unit was in operation, as recorded in Section C.2.e.

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If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204 A through F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

40 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b & c. Compliance shall be determined based upon the following equation:

where:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$ = OC emissions as from all resin operations (e.g., styrene), in pounds per day.

W_i = the weight of resin i employed, as specified in C.2.b, in pounds per day.

OC_i = the OC content of resin i , as specified in C.2.c, in percent by weight.

$EF(OC_i) = 0.04$
 For OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88))

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

c. Emission Limitation:

7.3 tons OC/year, excluding emissions from cleanup materials.

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Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this pultrusion unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

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d. Emission Limitation:

2.18 tons OC/month, from cleanup materials from all mixing and pultrusion lines at this facility.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$

where:

$EC(OC) = \text{OC emissions from the cleanup materials, in pounds per month.}$

$V_i = \text{the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.}$

$OC_i = \text{the OC content of cleanup material } i, \text{ as specified in Section C.3.d, in pounds per gallon.}$

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility-wide from mixing and pultrusion lines.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

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Emissions Unit ID: **P004**

0.0021 lb PE/hr

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Applicable Compliance Method:

Compliance is based on the following equation:

$$PE(SAW) = V(SC) \times CUT(MIN) \times DENSITY \times (1 - CE)$$

where:

PE(SAW) = particulate emission on cut-off saw on pultrusion line (lbs/hr)

V(SC) = volume of material removed by saw cut (cross sectional area x width of blade),
blade width (0.1875 in), cross sectional area (0.0625 ft²) totaling (0.001 ft³)

CUT(MIN) = 0.292 cuts/minute

DENSITY = 12 lb/ft³

CE = control efficiency (99%)

g. Emission Limitation:

0.009 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.0021 lb PE/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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F. Miscellaneous Requirements

None

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Pultrusion Line D equipped with a cut-off saw and a common baghouse	OAC rule 3745-31-05	Organic compound (OC) emissions shall not exceed 1.65 lbs/hr, 39.6 lbs/day and 7.23 tons/yr. See Section A.2.b. Particulate emissions (PE) shall not exceed 0.0024 lb/hr and 0.01 ton/year. Visible emissions (VE) from this emissions unit shall not exceed 0% opacity as a 6-minute average. Organic compound emissions from clean-up materials from all mixing and pultrusion lines at this facility shall not exceed 2.18 tons/month and 26.14 tons/year.
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-17-07(A)	see section A.2.a
	OAC rule 3745-17-11(B)	see section A.2.a

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2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the resin bath operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
2. The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
3. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0
1-11	9.13	22.1
1-12	9.9	24.9

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After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for resin employed (e.g., styrene);
 - b. the weight of resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of resin employed (e.g., styrene), in percent by weight;
 - d. the total OC emission rate for resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - e. the actual number of hours that the emissions unit was in operation;
 - f. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - g. the average, hourly OC emission rate for resin employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour; and
 - h. the daily and hourly (average) OC emissions rates are to be calculated by no later than the first week of the following month from which information was

collected for this emissions unit.

3. The permittee shall collect and record the following information for month (total plantwide, except for cleanup on coating lines):
 - a. the company identification for each cleanup material employed;
 - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - c. the volume of each cleanup material applied in gallons;
 - d. the OC content of each cleanup material applied in pounds per gallon;
 - e. the total OC emission rate for all cleanup material materials, in pounds per month, calculated as required in Section E.1.d.;
 - f. The combined total emission rate from all emission units for all cleanup material, except the coating lines, at this facility, in pounds per month (= usage, all is assumed to evaporate);
 - g. the monthly OC emission rate is to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

4. The permit to install for this emissions unit [P005] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 221.4

MAGLC (ug/m³): 2028.6

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5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units at the facility. The permittee shall maintain a record including methods, procedures, and assumption supporting the calculations.
8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.65 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the styrene emissions, excluding cleanup materials, from this emissions unit exceeded 39.6 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials, exceeded 2.18 tons per month from all mixing and pultrusion lines at the facility, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
 - e. an identification of each day during which an inspection was not performed by the required frequency; and

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- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

1.65 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the emissions unit was in operation, as recorded in Section C.2.e.

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If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204 A through F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

39.6 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b & c. Compliance shall be determined based upon the following equation:

where:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$ = OC emissions as from all resin operations (e.g., styrene), in pounds per day.

W_i = the weight of resin i employed, as specified in C.2.b, in pounds per day.

OC_i = the OC content of resin i , as specified in C.2.c, in percent by weight.

$EF(OC_i) = 0.04$
 For OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88))

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

c. Emission Limitation:

7.23 tons OC/year, excluding emissions from cleanup materials.

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Emissions Unit ID: **P005**

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this pultrusion unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

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d. Emission Limitation:

2.18 tons OC/month, from cleanup materials facility wide from all mixing and pultrusion equipment.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$

where:

$EC(OC) = \text{OC emissions from the cleanup materials, in pounds per month.}$

$V_i = \text{the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.}$

$OC_i = \text{the OC content of cleanup material } i, \text{ as specified in Section C.3.d, in pounds per gallon.}$

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility wide from all mixing and pultrusion equipment.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

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0.0024 lb PE/hr

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Applicable Compliance Method:

Compliance is based on the following equation:

$$PE(SAW) = V(SC) \times CUT(MIN) \times DENSITY \times (1 - CE)$$

where:

PE(SAW) = particulate emission on cut-off saw on pultrusion line (lbs/hr)

V(SC) = volume of material removed by saw cut (cross sectional area x width of blade),
blade width (0.1875 in), cross sectional area (0.0625 ft²) totaling (0.001 ft³)

CUT(MIN)= 0.333 cuts/minute

DENSITY= 12 lb/ft³

CE= control efficiency (99%)

g. Emission Limitation:

0.01 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.0024 lb PE/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(1).

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F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - Pultrusion Line E equipped with a cut-off saw and a common baghouse	OAC rule 3745-31-05	Organic compound (OC) emissions shall not exceed 1.65 lbs/hr, 39.6 lbs/day and 7.23 tons/yr. See Section A.2.b. Particulate emissions (PE) shall not exceed 0.0024 lb/hr and 0.01 ton/year. Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average. Organic compound emissions from clean-up materials from all mixing and pultrusion equipment at this facility shall not exceed 2.18 tons/month and 26.14 tons/year.
	OAC rule 3745-31-05(C)	see section B.3
	OAC rule 3745-21-07(G)(2)	see section A.2.a
	OAC rule 3745-17-07(A)	see section A.2.a
	OAC rule 3745-17-11(B)	see section A.2.a

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2. Additional Terms and Conditions

- 2.a** The emission limitations specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
- 2.b** The organic compound emissions from the resin bath operation consist of styrene, a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.
2. The permittee shall use only non-HAP, non-photochemically reactive material (eg. acetone) for cleanup of this emissions unit.
3. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year total HAP, based upon a rolling, 12 month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of individual HAPS (Tons)</u>	<u>Maximum Allowable Cumulative Emissions of total HAP (Tons)</u>
1	0.83	2.1
1-2	1.66	4.2
1-3	2.49	6.3
1-4	3.32	8.4
1-5	4.15	10.5
1-6	4.98	12.6
1-7	5.81	14.7
1-8	6.64	16.8
1-9	7.47	18.9
1-10	8.30	20.0
1-11	9.13	22.1
1-12	9.9	24.9

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After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall collect and record the following information for each day for this emissions unit:
 - a. the company identification for resin employed (e.g., styrene);
 - b. the weight of resin employed (e.g., styrene), in pounds;
 - c. the organic compound (OC) content of resin employed (e.g., styrene), in percent by weight;
 - d. the total OC emission rate for resin employed (e.g., styrene), calculated as required in Section E.1.b, in pounds per day;
 - e. the actual number of hours that the emissions unit was in operation;
 - f. the individual HAP and total HAP content of each resin employed, in pounds per gallon;
 - g. the average, hourly OC emission rate for resin employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour; and
 - h. the daily and hourly (average) OC emissions rates are to be calculated by no later than the first week of the following month from which information was

collected for this emissions unit.

3. The permittee shall collect and record the following information for month (total plantwide, except for cleanup on coating lines:
 - a. the company identification for each cleanup material employed;
 - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
 - c. the volume of each cleanup material applied in gallons;
 - d. the OC content of each cleanup material applied in pounds per gallon;
 - e. the total OC emission rate for all cleanup material materials, in pounds per month, calculated as required in Section E.1.d.;
 - f. The combined total emission rate from all emission units for all cleanup material, except the coating lines, at this facility, in pounds per month (= usage, all is assumed to evaporate);
 - g. the monthly OC emission rate is to be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

4. The permit to install for this emissions unit [P006] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 221.4

MAGLC (ug/m³): 2028.6

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5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall maintain records of the facility's potential to emit for each individual hazardous air pollutant (HAP) emission and the total of all HAP emissions combined by maintaining a formal up-to-date HAP emissions inventory from all HAP emission's units at the facility. The permittee shall maintain a record including methods, procedures, and assumption supporting the calculations.
8. Retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.65 pounds per hour, and the actual average hourly OC emissions for each such day;
 - b. an identification of each day during which the styrene emissions, excluding cleanup materials, from this emissions unit exceeded 39.6 pounds per day, and the actual OC emissions for each such day;
 - c. an identification of each month during which the combined OC emissions, from cleanup materials, exceeded 2.18 tons per month from all mixing and pultrusion lines at the facility, and the actual OC emissions for each such month;
 - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
 - e. an identification of each day during which an inspection was not performed by the required frequency; and

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- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
 - g. if no deviations, report no deviations.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAP and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

1.65 lbs OC/hr, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined by dividing the daily OC emissions, as calculated in Section E.1.b, by the number of actual number of hours that the emissions unit was in operation, as recorded in Section C.2.e.

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If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204 A through F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

39.6 lbs OC/day, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements specified in Section C.2.b & c. Compliance shall be determined based upon the following equation:

where:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$ = OC emissions as from all resin operations (e.g., styrene), in pounds per day.

W_i = the weight of resin i employed, as specified in C.2.b, in pounds per day.

OC_i = the OC content of resin i , as specified in C.2.c, in percent by weight.

$EF(OC_i) = 0.04$
 For OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88))

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

c. Emission Limitation:

7.23 tons OC/year, excluding emissions from cleanup materials.

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Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.2, and adding the daily OC emissions from all resins, as recorded each day in Section C.2.d and calculated per Section E.1.b, from this pultrusion unit, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

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d. Emission Limitation:

2.18 tons OC/month, from cleanup materials facility-wide from all mixing and pultrusion equipment.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i) \text{ daily over a month}$

where:

$EC(OC) = \text{OC emissions from the cleanup materials, in pounds per month.}$

$V_i = \text{the volume of cleanup material applied, as specified in Section C.3.c, in gallons per month.}$

$OC_i = \text{the OC content of cleanup material } i, \text{ as specified in Section C.3.d, in pounds per gallon.}$

The summation of all the cleanup materials from all emission units on a monthly basis.

e. Emission Limitation:

26.14 tons OC/year, from cleanup materials facility wide.

Applicable Compliance Method:

Compliance shall be based on maintaining the daily records as required in Section C.3, and by summing the monthly OC emissions from all cleanup materials, as recorded each month in Section C.3.e, from all emission units, for the calendar year, and this total (lbs/year) shall be divided by 2000 pounds per ton.

f. Emission Limitation:

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0.0024 lb PE/hr

Applicable Compliance Method:

Compliance is based on the following equation:

$$PE(SAW) = V(SC) \times CUT(MIN) \times DENSITY \times (1 - CE)$$

where:

PE(SAW) = particulate emission on cut-off saw on pultrusion line (lbs/hr)

V(SC) = volume of material removed by saw cut (cross sectional area x width of blade),
 blade width (0.1875 in), cross sectional area (0.0625 ft²) totaling (0.001 ft³)

CUT(MIN) = 0.333 cuts/minute

DENSITY = 12 lb/ft³

CE = control efficiency (99%)

g. Emission Limitation:

0.01 ton PE/year

Applicable Compliance Method:

The annual PE rate was determined by multiplying the maximum hourly rate of (0.0024 lb PE/hr) by maximum operation hours (8760 hr/yr), and then divide by 2000 lbs/ton.

h. Emission Limitation:

Visible emissions shall not exceed 0% opacity of visible PE, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method

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9 and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

None