

ADDITIONAL SPECIAL TERMS AND CONDITIONS

Introduction

This Permit to Install (PTI) reflects a new Best Available Technology (BAT) emissions evaluation, for two pultrusion polyester resin fabrication lines (emissions units P001 and P002). Stack test results have shown that OC emissions were underestimated for establishing the emission limits in the original PTI 03-6205 and are therefore being modified at this time.

A. Applicable Emission Limitations and/or Control Requirements

No additional applicable emission limitations and/or control requirements than those specified in the Air Emissions Summary.

B. Operational Restrictions

1. This permit allows the use of the polyester resin materials and cleanup materials specified by the permittee in the application for PTI number 03-13112. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the organic compound (OC) emission limitations specified in this permit were established in accordance with the Ohio EPA's "Air Toxics Policy" and are based on both the polyester resin material and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the 'Screen 3' model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each pollutant:

P001 and P002

Pollutant: styrene

TLV (ug/m3): 85,000

Maximum Hourly Emission Rate (lbs/hr): 7.2

**Predicted 1 Hour Max. Ground-Level Concentration at the
(ug/m3): 1692**

Fenceline

**(ug/m3): Maximum Acceptable Ground-Level Concentration (MAGLC)
2024**

As long as the application of the "Air Toxics Policy" continues to show compliance with the applicable MAGLC

and the permittee maintains documentation that identifies the change and the results of the application of the "Air Toxics Policy", the permittee may implement any of the following changes:

- a. any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup materials,

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that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission rate specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);

For any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a permit to install prior to the change.

C. Monitoring and Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for fabrication operations for each emissions unit separately (P001 and P002):
 - a. the type and weight, in pounds, of each polyester resin material employed (as applied);
 - b. the weight percentage of monomer (OC) for each polyester resin material (as applied);
 - c. the total OC emissions, in pounds, for each polyester resin material, calculated by the following equation: $(a \times b \times (\text{the emission factor of } 0.052))$;
 - d. the total OC emissions, in pounds, for all polyester resin materials (summation of c)

2. The permittee shall collect and record the following information each month for cleanup operations for emissions units P001 and P002 combined:
- a. the name and identification number of each cleanup material employed;
 - b. the number of gallons of each cleanup material employed;
 - c. the OC content of each cleanup material, in pounds per gallon;

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- d. the OC emissions from each cleanup material, in pounds (bxc);
- e. the total OC emissions for all cleanup materials, in tons (summation of d);

3. 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, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

D. Reporting Requirements

1. The permittee shall submit annual reports which specify the following for emissions units P001 and P002:
- a. Total OC emissions from fabrication operations for each emissions units for the previous calendar year.
 - b. Total OC emissions from cleanup operations for emissions units P001 and P002 combined for the previous calendar year.

These reports shall be submitted by January 31 of each year.

2. The permittee shall submit the following deviation (excursion) reports for emissions units P001 and P002

which identify the following:

- a. Each day during which the OC emissions from polyester fabrication operations from an individual emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
- b. Each month during which the OC emissions from cleanup operations from emissions units P001 and P002 exceeded 0.91 ton/month.

The above deviation reports shall be submitted in accordance with section D.3.

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3. Quarterly written reports of 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, the probable cause of such deviations, and 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.)

E. Testing Requirements/ Compliance Method Determinations

1. Compliance Method Determinations

Compliance with the emissions limitations in this permit to install shall be determined in accordance with the following methods:

- a. Emission Limitations - Fabrication Operations:

i. P001

(a) 3.6 lbs OC/hr

Applicable Compliance Method:

The hourly OC emission limitation is based on the emission units potential to emit*. Therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

*The potential to emit for this emissions unit was based on a maximum process production rate of 165 lbs polyester resin per hour, a maximum OC content of 42% in the resin, and an emission factor of 0.052 lb OC emitted/lb OC content in the resin.

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(b) 40 lbs OC/day

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in section C.1.

(c) 7.3 tons OC/yr

Applicable Compliance Method:

The tons/yr limitation was developed by multiplying the 40 lb OC/day allowable mass emission rate by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the daily limitation, compliance will also be shown with the annual limitation.

ii. P002

(a) 3.6 lbs OC/hr

Applicable Compliance Method:

The hourly OC emission limitation is based on the emission units potential to emit*. Therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

*The potential to emit for this emissions unit was based on a maximum process production rate of 165 lbs polyester resin per hour, a maximum OC content of 42% in the resin, and an emission factor of 0.052 lb OC emitted/lb OC content in the resin.

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(b) 40 lbs OC/day

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in section C.1.

(c) 7.3 tons OC/yr

Applicable Compliance Method:

The tons/yr limitation was developed by multiplying the 40 lb OC/day allowable mass emission rate by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the daily limitation, compliance will also be shown with the annual limitation.

- b. Emission limitation - Cleanup Operations (P001 & P002 Combined)
 - i. 0.91 ton OC/month

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping requirements specified in section C.2.

- ii. 10.9 tons OC/yr

Applicable Compliance Method:

The tons/yr limitation was developed by multiplying the 0.91 ton OC/month allowable mass emission rate by the maximum operating schedule of 365 12 months/yr. Therefore, provided compliance is shown with the monthly limitation, compliance will also be shown with the annual limitation.

2. Testing Requirements:

Any determination of OC content, solids content, or density for cleanup material or polyester resin material, shall be based on the cleanup material or polyester resin material as employed (as applied), including the addition of any thinner or viscosity reducer to the cleanup material. The permittee shall determine the composition of the cleanup and polyester resin materials by formulation data supplied by the manufacturer of the cleanup and

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resin material or from data determined by an analysis of each cleanup or resin material, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine data used in the calculation of the OC content of cleanup and resin materials by Reference Method 24 or an equivalent or alternative method.

"OC content" means all organic compounds that are in a cleanup or resin material expressed as pounds of OC per gallon.

F. Miscellaneous Requirements

None