

Facility ID: 0511000042 Issuance type: Final State Permit To Operate

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

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

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

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

Facility ID: 0511000042 Emissions Unit ID: K001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
(K001) - Power coating line and spray booth	OAC rule 3745-31-05(A)(3) and PTI 05-14398	<p>The volatile organic compound (VOC) emissions from the coatings employed in this emissions unit shall not exceed 48.7 lbs/day.</p> <p>The VOC content of coatings employed in this emissions unit shall not 4.87 lbs/gallon, as applied.</p> <p>The liquid organic cleanup materials employed in this emissions unit shall not exceed 4.0 gallons per month.</p> <p>The VOC content of liquid organic cleanup materials employed in this emissions unit shall not 6.71 lbs/gallon, as applied.</p> <p>The emissions from natural gas combustion in the drying ovens shall not exceed the following:</p> <p>0.4 lb/hr and 1.75 tons/yr NOx; 0.34 lb/hr and 1.47 tons/yr CO; 0.03 lb/hr and 0.13 ton/yr filterable PM; 0.002 lb/hr and 0.01 ton/yr SO2; and 0.022 lb/hr and 0.1 ton/yr VOC.</p> <p>This emissions unit shall be equipment with a dry filter system that minimizes the release of particulate emissions from the coating operations.</p> <p>See A.2.a, below.</p>
	OAC rule 3745-31-05(C)	The overall VOC emissions from this emissions unit shall not exceed 9.15 tons per 12-month rolling period.
	OAC rule 3745-21-09(U)(1)	This emissions unit is exempt from OAC rule 3745-21-09(U)(1) per OAC rule 3745-21-09(U)(2)(e)(iii). See B.1, below.
	OAC rule 3745-17-10(B)	0.02 lb PE per mmBtu for the drying oven
	OAC rule 3745-17-11(B) (for the drying ovens)	See Section A.2.b.
	OAC rule 3745-17-07(A) (for the drying ovens)	The Visible PE from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rules 3745-17-11(C)	See Sections B.2, C.6., C.7., and D.3.

2. Additional Terms and Conditions

- (a) The emission limitations for PM10, SO2, NOx, CO and VOC from combustion of natural gas in the drying

oven is established to reflect potential to emit for this emissions unit. Therefore, record keeping and reporting requirements are not necessary to ensure compliance with these limits.

The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2), Figure II of OAC rule 3745-17-11 does not apply.

B. Operational Restrictions

1. The coating usage in this emissions unit shall not exceed 10 gallons/day.
2. This emissions unit shall be controlled by a dry particulate filter system. The dry particulate filter system shall be operated in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator.

The owner or operator shall perform any needed maintenance and repair for the filter system to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for the coating line:
 - a. the name and identification number of each coating employed;
 - b. the volume, in gallons, of each coating employed; and
 - c. the total volume, in gallons, of all of the coatings employed.
2. The permittee shall collect and record the following information for the purpose of determining annual VOC emissions:
 - a. the name and identification of each cleanup material employed;
 - b. the number of gallons of each cleanup material employed;
 - c. the VOC content of each cleanup material, in pounds per gallon;
 - d. the VOC content of each coating, as applied, in pounds per gallon; and
 - e. the total VOC emissions from all coatings and cleanup materials employed, in pounds or tons.

3. The permit to install for this emissions unit 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 for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted Maximum in-stack concentration was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results for the "worst case" pollutant(s):

Pollutant: Xylene
 TLV (ppm): 100
 Maximum Hourly Emission Rate (lbs/hr): 2.9
 Predicted In-Stack Concentration: 0.49 ppm
 MAGLC (ppm): 2.38

Pollutant: Naphtha
 TLV (ppm): 100
 Maximum Hourly Emission Rate (lbs/hr): 1.1
 Predicted In-Stack Concentration: 0.18 ppm
 MAGLC (ppm): 2.38

Pollutant: Ethyl Benzene
 TLV (ppm): 100
 Maximum Hourly Emission Rate (lbs/hr): 0.73
 Predicted In-Stack Concentration: 0.12 ppm
 MAGLC (ppm): 2.38

Pollutant: Methyl Ethyl Ketone
 TLV (ppm): 200
 Maximum Hourly Emission Rate (lbs/hr): 0.07
 Predicted In-Stack Concentration: 0.011 ppm
 MAGLC (ppm): 4.76

Pollutant: Carbon Black
 TLV (ppm): 7.13
 Maximum Hourly Emission Rate (lbs/hr): 0.17
 Predicted In-Stack Concentration: 0.03 ppm
 MAGLC (ppm): 0.17

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 still 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 (typically for coatings or cleanup materials), or the use of new materials, 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 previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. 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 its 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.

6. The owner or operator shall conduct periodic inspections at a frequency that is based upon the recommendation of the manufacturer of the panel filter system, or at least once each calendar year, whichever ever comes first. The inspection shall determine whether the filter system is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator.

The owner or operator shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the panel filter system with any modifications deemed necessary by the owner or operator during the time period in which the control devices are utilized.

The owner or operator shall document each inspection of a control device by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.

These documents shall be maintained for not less than five years and made available to Ohio EPA upon request.

7. In the event that the dry filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator, the control devices shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The owner or operator shall maintain documentation of those periods when the control devices are not operating in accordance with such requirements.

These documents shall be maintained for not less than five years and made available to Ohio EPA upon request.

D. Reporting Requirements

- The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
- The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
- The permittee shall include in the quarterly report any record of the date and length of time the filter system was not in service during coating application. The quarterly report shall be submitted by January 31st, April 30th, July 31st, and October 31st of each year to the appropriate Ohio EPA Division of Air Pollution Control District Office or local air agency.

E. Testing Requirements

- Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation:
48.7 pounds of VOC per day, from coatings employed.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based shall be determined based on the following equation:

$$Ed = Cu \times OCc$$

where:

Ed = emission rate (lbs/day);

Cu= Maximum coating usage (10 gallons per day, from OAC rule 3745-21-09(U)(2)(e)(iii)); and

VOCc= Maximum VOC content (4.87 lbs/gal, from Emission Unit Activity Form)

Emission Limitation:

9.15 tons of VOC per 12-month rolling period, from coatings and cleanup employed.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit shall be demonstrated by the record keeping in C.2. The emissions limitation was established based on the following equation:

$$Ed = [(Cu \times 365) \times VOCc] + [(Clu \times 12) \times VOCc]$$

where:

AER = Annual Emission Rate (tons/yr);
 Cu= Maximum coating usage (10 gallons per day, from OAC rule 3745-21-09(U)(2)(e)(iii));
 VOCc= Maximum VOC content of coatings (4.87 lbs/gal, from Emission Unit Activity Form);
 Clu= Maximum liquid organic cleanup material usage (4.0 gallons per month); and
 VOCc= Maximum VOC content of liquid organic cleanup material (6.71 lbs/gal).
 The emissions from natural gas combustion in the drying ovens shall not exceed the following:

0.4 lb/hr and 1.75 tons/yr NOx;
 0.34 lb/hr and 1.47 tons/yr CO;
 0.030 lb/hr and 0.13 ton/yr filterable PM;
 0.002 lb/hr and 0.01 ton/yr SO₂; and
 0.022 lb/hr and 0.1 ton/yr VOC.

Applicable Compliance Method:

Compliance with the limits for natural gas combustion within the drying ovens shall be based upon the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Tables 1.4-1 and 1.4-2 (7/98). These emission factors (lb pollutant/106 scf) multiplied by the maximum combined hourly gas burning capacity of the burners (4.00 mmBtu) and times 1 scf/1020 Btu shall be the demonstration of compliance with the hourly limits. Compliance with the ton per year limits are documented by multiplying the calculated hourly limits by 8760 hours in a year and dividing by 2000 pounds.

Emission Limitation:

0.02 lb PE per mmBtu for the drying oven

Applicable Compliance Method:

Compliance with this limit shall be based upon the requirement for burning only natural gas for this emissions unit. If required, the permittee shall demonstrate compliance with this emissions limitation through a compliance demonstration performed in accordance with 40 CFR Part 60, Appendix A, Method 1 thru 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

Emission Limitation:

10% Opacity, as a six minute average, from the stack.

Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

Emission Limitation:

The VOC content of coatings employed in this emissions unit shall not 4.87 lbs/gallon, as applied.

Applicable Compliance Method:

Compliance shall be based on coating formulation data and if required VOC content shall be determined according the requirements of U.S. Reference Method 24 of 40 CFR Part 60, Appendix A.

Emission Limitation:

The liquid organic cleanup materials employed in this emissions unit shall not exceed 4.0 gallons per month.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit shall be demonstrated by the record keeping in C.2.

Emission Limitation:

The VOC content of liquid organic cleanup materials employed in this emissions unit shall not 6.71 lbs/gallon, as applied.

Applicable Compliance Method:

Compliance shall be determined according the requirements of U.S. Reference Method 24 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. The following Sections are Federally Enforceable A., B.1., C.1 to 5., D.2, and E.