

Facility ID: 1652000062 Issuance type: Final State Permit To Operate

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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: 1652000062 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 - Coil coating line consisting of an IR oven, two 3 MM Btu/hr indirect-fired ovens, a roll-coater, a spot welder, and a re-oil - laminating line.	OAC rule 3745-31-05(A)(3) (PTI 16-02405)	2.6 pounds of volatile organic compounds (VOC) per hour for coatings excluding cleanup materials (i.e., adhesive and rust preventive oil coatings)
		15.0 tons of VOC per year for coatings and cleanup materials
		Visible particulate emissions from any indirect-fired oven's stack shall not exceed five percent opacity, as a six-minute average.
		Natural gas combustion emissions from the two indirect-fired ovens combined shall not exceed the following:
		0.5 pound of carbon monoxide (CO) per hour and 2.2 tons of CO per year
		0.6 pound of nitrogen oxides (NOx) per hour and 2.6 tons of NOx per year
		0.12 pound of particulate emissions (PE) per hour and 0.53 ton of PE per year
	0.004 pound of sulfur dioxide (SO2) per hour and 0.02 ton of SO2 per year	
	0.03 pound of VOC per hour and 0.1 ton of VOC per year	
	OAC rule 3745-17-07(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10 and OAC rule 3745-21-09(E). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-10	0.020 pound of PE per million Btu of actual heat input
	OAC rule 3745-21-09(E)	2.6 pounds of VOC per gallon of coating, excluding water and exempt solvents

2. Additional Terms and Conditions

- (a) The hourly and annual CO, NOx, PE, VOC, and SO2 emission limitations from natural gas combustion regulated per OAC rule 3745-31-05(A)(3) are based on the emissions unit's potential to emit. Therefore, no record keeping or reporting is required to demonstrate compliance with these limits.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for the line:
 - a. the name and identification number of each coating, as applied;
 - b. the VOC content of each coating, in pounds per gallon, as applied;
 - c. the VOC emission factor for coatings that polymerize, in pounds of VOC emitted per pound of VOC employed;
 - d. the number of gallons of each coating employed;
 - e. the VOC emission rate from all coatings employed, in pounds per day (i.e., the sum of (b) times (d) for all coatings that do not polymerize plus the sum of (b) times (c) times (d) for all coatings that polymerize);
 - f. the total number of hours the emissions unit was in operation excluding time for cleanup; and
 - g. the average hourly VOC emissions rate for all coatings in pounds per hour (i.e., (e)/(f)).
2. The permittee shall collect and record the following information each month for the line:
 - a. the name and identification number of each coating, as applied;
 - b. the VOC content of each coating, in pounds per gallon, (excluding water and exempt solvents), as applied;
 - c. the VOC emission rate from all coatings employed, in tons per month;
 - d. the name and identification number of each cleanup material;
 - e. the VOC content of each cleanup material, in pounds per gallon;
 - f. the VOC emission rate from all cleanup materials employed, in tons per month; and
 - g. the total VOC emission rate from all coatings and cleanup materials employed (i.e., (c) + (f)), in tons per month.
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: acrylic acid
 TLV (mg/m3): 5.89
 Maximum Hourly Emission Rate (lbs/hr): 0.35
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 78.9
 MAGLC (ug/m3): 140

Pollutant: isopropanol
 TLV (mg/m3): 491.3
 Maximum Hourly Emission Rate (lbs/hr): 0.822
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 185.3
 MAGLC (ug/m3): 11,698
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 notify the Director of any monthly record showing the use of noncomplying coatings. A copy of such record shall be sent to the Director within 30 days following the end of the calendar month.
2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the VOC emissions exceeded 2.6 pounds per hour, and the actual average hourly VOC emissions for each such day.
3. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
4. 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.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:
0.5 pound of CO per hour
Applicable Compliance Method:
Multiply the CO emission factor of 84 pounds of CO emissions per million cubic feet of natural gas by the maximum hourly natural gas usage. The CO emission factor is from AP-42, 5th edition, Table 1.4-1, dated 7/98.
Emission Limitation:
0.6 pound of NOx per hour
Applicable Compliance Method:
Multiply the NOx emission factor of 100 pounds of NOx emissions per million cubic feet of natural gas by the maximum hourly natural gas usage. The NOx emission factor is from AP-42, 5th edition, Table 1.4-1, dated 7/98.
Emission Limitation:
0.12 pound of PE per hour
Applicable Compliance Method:
Multiply the allowable PE emission limitation of 0.020 pound of particulate emissions per million Btu of actual heat input by the maximum hourly actual heat input.
Emission Limitation:
0.004 pound of SO2 per hour
Applicable Compliance Method:
Multiply the SO2 emission factor of 0.6 pound of SO2 emissions per million cubic feet of natural gas by the maximum hourly natural gas usage. The SO2 emission factor is from AP-42, 5th edition, Table 1.4-2, dated 7/98.
Emission Limitation:
0.03 pound of VOC per hour
Applicable Compliance Method:
Multiply the VOC emission factor of 5.5 pounds of VOC emissions per million cubic feet of natural gas by the maximum hourly natural gas usage. The VOC emission factor is from AP-42, 5th edition, Table 1.4-2, dated 7/98.
Emission Limitation:
0.020 pound of PE per million Btu of actual heat input
Applicable Compliance Method:
If required, compliance with the allowable emission limitation shall be determined in accordance with test method(s) and procedures specified in OAC rule 3745-17-03(B)(9).
Emission Limitations:
0.53 ton of PE per year
2.2 tons of CO per year
2.6 tons of NOx per year

0.02 ton of SO₂ per year
0.1 ton of VOC per year

Applicable Compliance Method:

Multiply the allowable hourly emission limitation by 8760 hours per year, then divide by 2000 pounds per ton.
Emission Limitation:

2.6 pounds of VOC per hour for coatings excluding cleanup materials

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section C.1.
Emission Limitations:

2.6 pounds of VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in section C. 2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to section 11.4 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
Emission Limitation:

15.0 tons of VOC per year for coatings and cleanup materials

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections C.1 and C.2.
Emission Limitation:

Visible particulate emissions from any indirect-fired oven's stack shall not exceed five percent opacity, as a six-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

F. **Miscellaneous Requirements**

1. None