

Facility ID: 0238000150 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: 0238000150 Emissions Unit ID: R010 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

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>
Off-line manual top coat spray booth to finish wood furniture. Parts air dried and manually moved	OAC rule 3745-31-05(A)(3) (PTI 02-22054 issued 9/8/06)	See sections A.2.b, A.2.c and B.1 below.
	OAC rule 3745-21-07(G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2). See section A.2.a below.
	OAC rule 3745-31-05(C)	See sections A.2.d, A.2.e and B.2 below.
	OAC rule 3745-114	See sections C.6, C.7, C.8, C.9 and D.4.

2. Additional Terms and Conditions

- (a) No photochemically reactive materials (coatings and cleanup materials), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.

This requirement shall cease to be effective and federally enforceable on the date the U.S. EPA approves this rule revision as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emissions limitations, monitoring, record keeping, reporting and testing related to these hourly and daily limitations included in this permit shall be void.

The volatile organic compound (VOC) emissions from all the coatings shall not exceed 18.30 pounds per hour. [This limit is based upon the maximum application rate of 3.0 gallons per hour.]

The VOC content of each coating shall not exceed 6.10 pounds per gallon, as applied.

The hazardous air pollutant (HAP) emissions from all the coatings and cleanup materials for emissions units R004, R005, R006, R007, R008, R009 and R010, combined, shall not exceed 9.5 tons of any single HAP per rolling, 12-month period, or 24.5 tons of total, combined HAPs per rolling, 12-month period.

The hazardous air pollutant (HAP) emissions from all the coatings and cleanup materials for emissions units R004, R005, R006, R007, R008, R009 and R010, combined, shall not exceed 9.5 tons of any single HAP per rolling, 12-month period, or 24.5 tons of total, combined HAPs per rolling, 12-month period.

The VOC emissions from all the coatings and cleanup materials shall not exceed 80.29 tons per year from this emissions unit, and shall not exceed 97.5 tons per rolling, 12-month period for emissions units R004, R005, R006, R007, R008, R009 and R010, combined.

B. Operational Restrictions

1. All exhaust from the spray booth shall pass through the dry filters whenever this emissions unit is in operation.
2. The maximum emissions from the coatings and cleanup materials usage for emissions units R004, R005, R006, R007, R008, R009 and R010, combined, shall not exceed 97.5 tons of VOC, 9.5 tons of a single HAP or 24.5 tons of total, combined HAPs per rolling, 12-month period. The permittee has existing coating and clean up material usage records such that there is no need for first year monthly VOC emission limitations.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall collect and record the following information for each day for the emissions unit:
 - a. the company identification for each coating or cleanup material employed;

- b. documentation on whether or not each material employed (coating and cleanup) was a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5);
 - c. the VOC content of each coating, in lbs/gallon, as applied;
 - d. the number of gallons of each coating employed minus the number of gallons of each coating recovered for disposal;
 - e. the total VOC emissions from all the coatings employed, in lbs/day, i.e., sum of (c) times (d);
 - f. the total number of hours the emissions unit was in operation; and
 - g. the average hourly VOC emission rate for all the coatings, i.e., (e)/(f), in lbs/hr.
- [Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).]
3. The permittee shall collect and record the following information for each month for the emissions unit:
 - a. the number of gallons of cleanup material employed minus the number of gallons of cleanup material recovered for disposal;
 - b. the VOC content of each cleanup material, in lbs/gallon;
 - c. the total VOC emissions from all cleanup materials employed, in lbs/month, i.e., sum of (b) times (a); and
 - d. the actual VOC emissions from all the coatings and cleanup materials employed, in tons, i.e., [(the summation of the daily VOC emissions, from section C.2.e, for the calendar month + the monthly cleanup material VOC emissions from section C.3.c) divided by 2000 lbs/ton].
 4. The permittee shall calculate and record the following VOC information for each month for emissions units R004 through R010, combined:
 - a. the total VOC emissions for all the coatings and cleanup materials employed, in tons (calculated by summing the total VOC emissions recorded in section C.3.d for each emissions unit); and
 - b. the total VOC emissions for the previous, 12-month period, in tons.
 5. The permittee shall calculate and record the following HAP information for each month for emissions units R004 through R010, combined:
 - a. the name and identification number of each coating and cleanup material, as applied;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the single HAP (see notes below) content for each HAP of each coating and cleanup material, in pounds of individual HAP per gallon of coating, as applied;
 - d. the total single HAP emissions for each HAP from all coatings and cleanup materials employed, in tons per month, i.e., for each HAP the sum of (b) times (c) for each coating and cleanup material, divided by 2000;
 - e. the rolling, 12-month summation of the emissions of each single HAP for the previous 12-month period, i.e., the summation of (d) in tons per rolling, 12-month period;
 - f. the total, combined HAPs (see notes below) content for all HAPs of each coating and cleanup material, in pounds of total, combined HAPs per gallon of coating, as applied;
 - g. the total, combined HAPs emissions from all coatings and cleanup materials employed, in tons per month, i.e., the sum of (b) times (f) for each coating and cleanup material, divided by 2000; and
 - h. the rolling, 12-month summation of the emissions of total, combined HAPs for the previous 12-month period, i.e., the summation of (g) in tons per rolling, 12-month period.
 6. The permit to install for emissions unit [R004] and emissions units R004, R005, R006, R007, R008, R009 and R010, combined, were evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: n-butyl alcohol

TLV (mg/m3): 60.6

Maximum Hourly Emission Rate (lbs/hr): 22.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 451.7

MAGLC (ug/m3): 14,428

The permittee, has demonstrated that emissions of each air contaminant, from emissions units R004, R005, R006, R007, R008, R009 and R010, combined, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

7. Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

8. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

9. The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Northeast District Office in writing of any daily record showing that the dry filters were 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 Ohio EPA, Northeast District Office within 30 days after the event occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify:

a. each day during which the average VOC emissions from the coatings exceeded the pounds per hour limitation, and the actual average VOC emissions for each such day;

b. each day during which the VOC content of any coating exceeded the pounds per gallon limitation, and the actual VOC content of each such coating employed;

- c. all exceedances of the rolling, 12-month VOC emission limitation for this emissions unit and emissions units R004, R005, R006, R007, R008, R009 and R010, combined, and the actual VOC emissions during each such period;
- d. any exceedance of the rolling, 12-month emission limitation for each single HAP from emissions units R004, R005, R006, R007, R008, R009 and R010, combined, and the actual single HAP emissions during each such period; and
- e. any exceedance of the rolling, 12-month emission limitation for total, combined HAPs from emissions units R004, R005, R006, R007, R008, R009 and R010, combined, and the actual total, combined HAPs emissions during each such period.

The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

- 3. The permittee shall also submit annual reports that summarize the actual annual emissions of VOC, from this emissions unit and the maximum single HAP emissions and total, combined HAP emissions from emissions units R004, R005, R006, R007, R008, R009 and R010, combined. The reports shall include the emissions calculations and shall be submitted by January 31 of each year, and shall cover the previous calendar year.
- 4. The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

E. Testing Requirements

- 1. Compliance with the allowable emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods
Emission Limitation:
VOC emissions shall not exceed 20.97 pounds per hour

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation shall be determined based upon the record keeping requirements specified in section C.2 of this permit.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation in accordance with Methods 1 through 4 and Method 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

Emission Limitations:

VOC emissions shall not exceed 80.29 tons per year from this emissions unit and 97.5 tons per rolling, 12-month period from all the coatings and cleanup materials, for emissions units R004, R005, R006, R007, R008, R009 and R010, combined

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation above shall be based upon the record keeping requirements specified in sections C.2, C.3 and C.4 of this permit.

Emission Limitation:

VOC content shall not exceed 6.99 pounds per gallon coating, as applied

Applicable Compliance Method:

Any determination of VOC content, solids contents, or density of coating material or cleanup material shall be based on the coating materials as employed (as applied), including the addition of any thinner or viscosity reducer to the coatings. In accordance with OAC rule 3745-21-04(B)(5), the permittee shall determine the composition of the coatings or cleanup material by formulation data supplied by the manufacturer of the coating materials, or from data determined by an analysis of each coating, as applied, by Reference Method 24 or Method 24A. If, pursuant to section 11.4 of Method 24, 40 CFR Part 60, Appendix A (revised as of July 1, 2001), an owner or operator determines that Method 24 or Method 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 and/or Method 24A.

Emission Limitation:

Each single HAP shall not exceed 9.5 tons, based upon a rolling, 12-month summation for emissions units R004, R005, R006, R007, R008, R009 and R010, combined

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements specified in section C.5.e.

Emission Limitation:

Total combined HAPs shall not exceed 24.5 tons, based upon a rolling, 12-month summation for emissions units R004, R005, R006, R007, R008, R009 and R010, combined.

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements specified in section C.5.h.

F. Miscellaneous Requirements

- 1. In accordance with the provisions of OAC rule 3745-31-05(C), the following terms and conditions of this permit to install are federally enforceable: A through F, except C.6, C.7, C.8, C.9 and D.4.