

Facility ID: 1409040847 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: 1409040847 Emissions Unit ID: R001 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>
R001 - Wood coating line and associated cleaning, washoff, and gluing operations	OAC rule 3745-31-05(A)(3) (PTI 14-04014)	See term and condition A.2.c.
	OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2) and OAC rule 3745-31-05(C). See term and condition A.2.a.
	Synthetic Minor for Hazardous Air Pollutants (HAPs) to Avoid NESHAP 40 CFR Part 63, Subpart JJ and Title V	See term and condition A.2.d.
	OAC rule 3745-21-07(G)(2)	See term and condition A.2.b.

2. Additional Terms and Conditions

- (a) The total allowable volatile organic compound (VOC) emissions from all the wood finishing processes and associated cleaning, washoff and gluing processes located at this facility shall not exceed 24.9 TPY based on a rolling, 12-month summation. "Coating" means a protective, decorative, or functional material applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, inks and temporary protective coatings. "Cleaning material" means organic solvent used to remove coating materials from equipment used in wood furniture manufacturing operations. "Washoff material" means organic solvent used to remove coating from a substrate. "Gluing material" means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. "Volatile organic compound" means any volatile organic compound as defined in OAC rule 3745-21-01(B)(6).
On any day in which a photochemically reactive material (PRM) is employed in emissions units R001, R002, R003, R004 or R005, the volatile organic compound/organic compound (VOC) emissions from each such emissions unit employing a PRM shall not exceed 8 pounds per hour and 40 pounds per day (including cleaning material emissions).
On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the volatile organic compound/organic compound (VOC) emissions shall not exceed 9.93 pounds per hour and 150.86 pounds per day (including cleaning material emissions) as an average for all emissions units in which no PRM was employed.
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units R001 (Wood Coating Line), R002 (Wood Coating Line), R003 (Wood Coating Line), R004 (Wood Coating Line), R005 (Wood Coating Line), R006 (Prototype Coating Line), other de minimus air contaminant source, as defined in OAC rule 3745-15-05, and other air contaminant sources exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

B. Operational Restrictions

1. None
- C. Monitoring and/or Record Keeping Requirements**
1. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.d:
 - a. The name and identification number of each coating, employed;
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
 - c. The total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied [sum all the individual HAP contents from (b)];
 - d. The number of gallons of each coating employed;
 - e. The name and identification of each cleaning, washoff and gluing material employed;
 - f. The individual HAP content for each HAP of each cleaning, washoff and gluing material, in pounds of individual HAP per gallon of cleaning material, washoff and gluing material as applied;
 - g. The total combined HAP content of each cleaning, washoff and gluing material, in pounds of combined HAPs per gallon of cleaning, washoff and gluing material, as applied [sum all the individual HAP contents from (f)];
 - h. The number of gallons of each cleaning, washoff and gluing material employed;
 - i. The total individual HAP emissions for each HAP from all coatings and cleaning, washoff and gluing materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) for each coating plus the sum of (f) times (h) for each cleaning, washoff and gluing material];
 - j. The total combined HAP emissions from all coatings and cleaning, washoff and gluing materials employed, in pounds or tons per month [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleaning, washoff and gluing material];
 - k. The updated rolling, 12-month summation of emissions for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - l. The updated rolling, 12-month summation of emissions for total combined HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

Monthly records shall be completed within 15 days following the end of each calendar month.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.
 2. On any day in which a PRM is employed in emissions units R001, R002, R003, R004 or R005, the permittee shall maintain the following daily records for each such emissions unit for the day in which the PRM is employed:
 - a. The company identification for each coating and cleaning, washoff and gluing material employed;
 - b. The number of gallons of each coating and cleaning, washoff and gluing material employed;
 - c. The VOC content of each coating and cleaning, washoff and gluing material, in pounds per gallon;
 - d. The total VOC emission rate for all coatings and cleaning, washoff and gluing materials, in pounds per day (b x c);
 - e. The total number of hours the emissions unit was in operation; and
 - f. The average hourly VOC emission rate for all coatings and cleaning, washoff and gluing materials, i.e., (d)/(e), in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the cleaning material information is only for cleaning materials that are determined to be PRMs.]
 3. On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the permittee shall maintain the following daily records for all such emissions units:
 - a. The company identification of each coating and cleaning, washoff and gluing material employed;
 - b. The gallons of each coating and cleaning, washoff and gluing material employed;
 - c. The VOC content of each coating and cleaning, washoff and gluing material employed, in pounds per gallon;
 - d. The total VOC emissions from all emissions units not employing a PRM, i.e. the sum of (b)x(c) for each coating and cleaning, washoff and gluing material employed, in pounds per day;
 - e. The total hours of operation for all emissions units not employing a PRM;
 - f. The average hourly VOC emissions rate for all emissions units not employing a PRM, i.e., (d)/(e), in pounds per hour; and
 - g. The average daily VOC emissions rate for all emissions units not employing a PRM, i.e., (d)/the number of emissions units not employing a PRM, in pounds per day.

[Note: The coating information in (c) must be for the coatings as applied, including any thinning solvents added at the coating line.]

4. The permittee shall collect and record the following information each month for all the wood finishing processes and associated cleaning, washoff and gluing processes located at this facility, including emissions units R001, R002, R003, R004, R005, and R006, for the purpose of demonstrating compliance with the annual VOC emission rate of 24.9 TPY VOC combined, based on a rolling 12-month summation:
- The name and identification number of each coating and cleaning, washoff and gluing material employed;
 - The volume, in gallons, of each coating and cleaning, washoff and gluing material employed;
 - The VOC content of each coating and cleaning, washoff and gluing material, in pounds of VOC per gallon, as applied;
 - The amount of VOC emitted for all coating and cleaning, washoff and gluing materials employed, in pounds per month, (b)x(c);
 - The rolling 12-month usage for coating and cleaning, washoff and gluing materials, in gallons. This shall include the information for the current month and the preceding eleven calendar months; and
 - The rolling 12-month VOC emission rate in tons per year (in tons, rounded off to one decimal place). This shall include the information for the current month and the preceding eleven calendar months.

Monthly records shall be completed within 15 days following the end of each calendar month.

5. The permit to install for emissions units R001, R002, R003, R004 and R005, combined 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). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
 TLV (mg/m3): 370
 Maximum Hourly Emission Rate (lbs/hr): 0.12
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.203
 MAGLC (ug/m3): 8.809

6. 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:
- 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");
 - 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
 - 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.).
7. 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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - 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.
8. The permittee shall maintain for this facility all purchase orders and invoices of VOC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.

D. Reporting Requirements

1. The permittee shall submit quarterly written reports which identify any daily record when a PRM is employed in emissions units R001, R002, R003, R004 or R005 which shows an exceedance of the 8 pounds per hour and/or 40 pounds per day VOC emissions limits. The report shall include a copy of each such record along with the actual average hourly VOC emissions rate and the actual daily VOC emissions for each emissions unit in which the VOC emissions limits were exceeded.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by February 15, May 15, August 15, and November 15 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively) .

If no exceedances occurred during the reporting period, then a report is required stating so.

2. The permittee shall submit quarterly written reports which identify any daily record when no PRM is employed in emissions units R001, R002, R003, R004 or R005 which shows an exceedance of the 9.93 pounds per hour and/or 150.86 pounds per day average VOC emissions limits. The report shall include a copy of each such record along with the actual average hourly VOC emissions rate and the actual average daily VOC emissions for the emissions units in which the VOC emissions limits were exceeded.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by February 15, May 15, August 15, and November 15 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively) .

If no exceedances occurred during the reporting period, then a report is required stating so.

3. The permittee shall submit quarterly written reports which identify the updated rolling 12-month summation of volatile organic compound emissions in TPY for all coatings and cleaning, washoff and gluing materials employed for each calendar month during the reporting period for all the wood finishing processes and associated cleaning, washoff and gluing processes at the facility, including emissions units R001, R002, R003, R004, R005, and R006.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by February 15, May 15, August 15, and November 15 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively).

4. If the permittee has a rolling, 12-month record that exceeds 24.9 tons of VOC from combined operations associated with the manufacture of wood furniture, or wood furniture components, the permittee shall submit the following:
 - a. Within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, a notification to the Hamilton County Department of Environmental Services that the VOC emission limit was exceeded; and
 - b. Within three months after the end of that rolling, 12-month period in which the exceedance occurred, a compliance plan to the Hamilton County Department of Environmental Services to comply with the presumptive RACT standards specified within USEPA document EPA-453/R-96-007 " Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations" (April 1996). Any divergence from the presumptive RACT standards and the model rule provided within that document shall be described at the time of the submittal of the 3-month compliance plan. Compliance with the presumptive RACT standards is to be achieved within 12 months after the rolling, 12-month period exceedance, unless otherwise requested by the permittee and approved by USEPA as a revision to Ohio's state implementation plan for ozone.
 - c. Exceeding the 24.9 TPY VOC limit is a violation for each day of the last month of each 12 month period in which the 24.9 TPY limit is exceeded, regardless of whether a compliance plan is submitted.
5. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedance of the rolling, 12-month HAP emission limitations outlined in term and condition A.2.d. The report shall include a copy of each such record along with corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period, then a report is required stating so.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by February 15, May 15, August 15, and November 15 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively).

E. Testing Requirements

1. OAC rule 3745-21-10(B) shall be used to determine the VOC contents of the coatings, cleaning, washoff and gluing materials employed in this emissions unit. If, pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, cleaning, washoff or gluing material, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for the coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

Method 24 or 24A can be performed by the permittee or other party (i.e., the permittee's coating supplier).
2. Compliance with the VOC emission limitations outlined in term A.2.b shall be demonstrated by the required recordkeeping in section C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in section C.3.
4. Compliance with the 12-month rolling VOC emission limitation outlined in term A.2.a shall be demonstrated by the required recordkeeping in section C.4.

5. Compliance with the 12-month rolling HAP limitations outlined in term A.2.d shall be demonstrated by the record keeping in section C.1.

F. **Miscellaneous Requirements**

1. The following Sections of this permit are federally enforceable: A, B, C.1, C.2, C.3, C.4, C.8, D, and E.
2. Except as otherwise defined in Sections A through E, the following terms have the following meanings:

"Average" in Terms A.2.c and C.3 shall mean total daily emissions divided by actual hours of operation in that day. Average hourly or daily emissions shall be calculated by adding the total daily/hourly emissions from emissions units R001, R002, R003, R004 and R005 which did not employ any photochemically reactive material (PRM) on a given day and dividing the sum by the total number of those emissions units.

"Employed" shall mean the use of coatings and/or cleaning solvent in a manner which contributes directly to emissions, but shall not include such use which is a part of a recycle or reuse process or procedure, except for actual emissions.

"PRM" shall mean any photochemically reactive material or substance containing a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

"Volatile organic compound" shall mean any volatile organic compound as defined in OAC rule 3745-21-01(B)(6).