

Facility ID: 1409040302 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: 1409040302 Emissions Unit ID: R007 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>   |
|--|--|--|
| R007 - Wood Coating Line #2 with associated cleaning, washoff, and gluing process and Metal Parts Coating Line | OAC rule 3745-31-05(A)(3) (PTI 14-05443) | Volatile Organic Compound (VOC) emissions shall not exceed 222 pounds per day.<br><br>See terms and conditions A.2.a, A.2.e, and A.2.f.  |
|  | OAC rule 3745-31-05(C)                   | The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and OAC rule 3745-21-09(U)(2)(e)(ii).<br><br>Volatile Organic Compound (VOC) emissions shall not exceed 24.9 tons per year (TPY) for emissions units R006, R007, R008, R009, R010, and R011, combined, based upon a rolling 12-month summation.<br><br>See terms and conditions A.2.b, A.2.c, and Section B.1. |
|  | OAC rule 3745-21-09(U)(2)(e)(ii)         | See Section B.2.   |

**2. Additional Terms and Conditions**

- (a) The VOC content of each coating (including gluing material) and cleanup (cleaning) material (including washoff material) employed in this emissions unit shall not exceed 7.4 pounds per gallon, as applied, for both metal and woodfinishing.  
 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 R006 (Coating Line 1), R007 (Coating Line 2), R008 (Coating Line 3), R009 (Coating Line 1A), R010 (Coating Line 4), R011 (Coating Line 5), 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.  
 The total allowable VOC emissions from all the woodfinishing processes, its associated cleaning, washoff and gluing processes and the miscellaneous metal parts coating lines located at this facility shall not exceed 24.9 TPY based on a rolling, 12-month summation. The 24.9 TPY rolling 12-month summation includes emissions from metal coating. "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 and miscellaneous metal parts coating 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. This emissions limit is based on usages outlined in Section B.1 and the VOC content in term and condition A.2.a (See Section E.2 for the calculations).  
 Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the VOC content limitation, and coating and cleanup material usage limitations.  
 The daily emission limitation outlined in this permit is based upon the maximum daily production/application rate at 30 gallons per day for woodfinishing operations. Therefore, no daily records are required.

The use of methanol-based stains is prohibited in emissions unit R007.

**B. Operational Restrictions**

1. The maximum annual coating and cleanup material usage for emissions units R006, R007, R008, R009, R010 and R011, combined shall not exceed 6,500 gallons for woodworking and miscellaneous metal parts, based upon a rolling, 12-month summation of the coating and cleanup usage figures.
2. The maximum daily coating use for this emissions unit shall not exceed 3 gallons per day for the coating of miscellaneous metal parts.

**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.b:
  - 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 cleanup material employed;
  - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
  - h. The number of gallons of each cleanup material employed;
  - i. The total individual HAP usage\*\* for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12 month period [for each HAP the sum of (b) times (d) for each coating plus the sum of (f) times (h) for each cleanup material];
  - j. The total combined HAP usage\*\* from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling 12 month period [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleanup material].

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.

\*\* This assumes the amount of HAPs used is equivalent to the amount of HAPs that will evaporate and be emitted.

2. The permittee shall collect and record the following information each month for emissions units R006, R007, R008, R009, R010 and R011, combined:
  - a. The name and identification number of each coating, cleaning, washoff and gluing material employed. "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 and miscellaneous metal parts coating 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;
  - b. The volume, in gallons, of each coating, cleaning, washoff and gluing material employed;
  - c. The VOC content of each coating, cleaning, washoff and gluing material, in pounds of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating, cleaning, washoff and gluing materials employed, in pounds per month (b x c);
  - e. The rolling, 12-month\* usage for coating, cleaning, washoff and gluing materials, in gallons;
  - f. The rolling, 12-month\* VOC emission rate in tons per year (in tons, rounded off to one decimal place).

\*A rolling, 12-month period includes the present month plus the previous 11 months of operation.

Monthly records shall be completed within 15 days following the end of each calendar month and shall include the updated rolling, 12-month VOC emission rate in tons.

3. The permit to install for this emissions unit R007 was evaluated based on the actual materials (typically coatings and cleanup 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 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (ug/m3): 188,400  
 Maximum Hourly Emission Rate (lbs/hr): 8.307  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration (ug/m3): 2043  
 MAGLC (ug/m3): 4486

Physical changes to or 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 Toxics 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 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 with 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.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will 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. when the 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.
4. 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.
5. The permittee shall collect and record the following information each day for the coating line when coating metal parts:
- 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 coatings employed.

**D. Reporting Requirements**

1. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of VOC emissions in TPY for each calendar month from emissions units R006, R007, R008, R009, R010 and R011, combined. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter. Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12-month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.
2. The permittee shall submit quarterly reports which specify the updated rolling, 12-month summation of total usages in gallons from coatings and cleanup materials from emissions units R006, R007, R008, R009, R010 and R011, combined, for each calendar month. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
3. The permittee shall submit quarterly reports which identify all exceedances of the VOC content limitation in term and condition A.2.a. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.
4. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations in term and condition A.2.b. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.
5. If the facility (R006, R007, R008, R009, R010 and R011) 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.
  - 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.
6. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit in Section B.2 when coating metal parts. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
**Emissions Limitation:**  
 The VOC content of each coating (including gluing material) and cleanup (cleaning) material (including washoff material) employed in this emissions unit shall not exceed 7.4 pounds per gallon, as applied, for both metal and woodfinishing.  
  
**Applicable Compliance Method:**  
 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.  
**Emissions Limitation:**  
 Volatile Organic Compound (VOC) emissions shall not exceed 24.9 tons per year (TPY) for emissions units R006, R007, R008, R009, R010 and R011, combined, based upon a rolling 12-month summation.  
  
**Applicable Compliance Method:**  
 Compliance with the annual VOC emissions limitation shall be based upon the record keeping requirements specified in Section C.2 of this permit.  
**Emission Limitations:**  
 Actual emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.  
  
**Applicable Compliance Method:**  
 Compliance with the HAP emission limitations in term and condition A.2.b shall be determined by the record keeping in Section C.1.  
**Emissions Limitation:**  
 Volatile Organic Compound (VOC) emissions shall not exceed 222 pounds per day.  
  
**Applicable Compliance Method:**  
 The emissions limitation outlined above is based upon the emission unit's potential to emit for the worst-case woodfinishing operations. The potential to emit was calculated by: (maximum daily production/application rate of 30 gallons per day) x (maximum allowable VOC content of 7.4 pounds of VOC per gallon for coating and cleaning materials).
2. The VOC emissions are calculated by multiplying the VOC content times the material usage.  
  
 For coatings and cleanup materials, use the following equation:  
  

$$\text{VOC content (pounds/gallon)} \times \text{material usage rate (gallons)} = \text{pounds of VOC. Divide total pounds by 2000 to convert to tons.}$$

**F. Miscellaneous Requirements**

1. This federally enforceable permit limits the potential emissions of VOC from the wood furniture finishing processes and associated cleaning, washoff and gluing processes located at this facility to no more than 24.9 TPY during any rolling, 12-month period. Should VOC emissions from the wood finishing processes and associated cleaning, washoff and gluing processes exceed 24.9 TPY during any rolling 12-month period, this facility should notify the Hamilton County Department of Environmental Services within 30 days. See Section D.5.
2. The following terms and conditions of this permit are federally enforceable: A, B, C.1-C.2, C.4-C.5, D, and E.