



State of Ohio Environmental Protection Agency

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**CERTIFIED MAIL**

**RE: FINAL PERMIT TO INSTALL MODIFICATION**

**BUTLER COUNTY**

**Application No: 14-04014**

**Fac ID: 1409040847**

**DATE: 7/26/2007**

Hamilton Fixture  
Robert Kehm  
3550 Symmes Road  
Hamilton, OH 45015

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

HCDES



**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-04014**

Application Number: 14-04014  
Facility ID: 1409040847  
Permit Fee: **\$600**  
Name of Facility: Hamilton Fixture  
Person to Contact: Robert Kehm  
Address: 3550 Symmes Road  
Hamilton, OH 45015

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3550 Symmes Road**  
**Hamilton, Ohio**

Description of proposed emissions unit(s):  
**Administrative Modification to Permit to Install 14-04014 for Cleanup Material Record-Keeping and Removal of Emission Units Not Installed (R007 and R008).**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and

regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions

may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

#### 14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

#### 15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

### B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
Volatile Organic Compounds	24.9

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R001) - Wood coating line and associated cleaning, washoff, and gluing operations - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.c.  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).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          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**

- 2.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).

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b** 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).
- 2.c** 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.
- 2.d** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping 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:
  - a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
  - b. The volume, in 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 of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating and cleaning, washoff and gluing materials employed, in pounds per month, (b)x(c);
  - e. 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
  - f. 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/m<sup>3</sup>): 370

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 7.203

MAGLC (ug/m<sup>3</sup>): 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:
  - 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.).
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. 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.
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 term C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term 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 term 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 term 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.2 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R001 contained in permit to install 14-04014, issued on September 16, 2003.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R002) - Wood coating line and associated cleaning, washoff, and gluing operations - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.c.  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).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          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**

- 2.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).

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b** 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).
- 2.c** On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the 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.
- 2.d** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

## **B. Operational Restrictions**

None

## **C. Monitoring and/or Recordkeeping 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:
  - a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
  - b. The volume, in 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 of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating and cleaning washoff and gluing materials employed, in pounds per month, (b)x(c);
  - e. 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
  - f. 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/m<sup>3</sup>): 370

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 7.203

MAGLC (ug/m<sup>3</sup>): 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:
  - 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.).
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. 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.
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 term C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term 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 term 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 term 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 the Sections A through E, the following terms have the following meanings:

"Average" in Terms A.2.c and C.2 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R002 contained in permit to install 14-04014, issued on September 16, 2003.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R003) - Wood coating line and associated cleaning, washoff, and gluing operations - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.c.  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).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          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**

- 2.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).

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b** 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).
- 2.c** On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the 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.
- 2.d** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

## **B. Operational Restrictions**

None

## **C. Monitoring and/or Recordkeeping 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:
  - a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
  - b. The volume, in 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 of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating and cleaning washoff and gluing materials employed, in pounds per month, (b)x(c);
  - e. 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*
  - f. 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/m<sup>3</sup>): 370

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 7.203

MAGLC (ug/m<sup>3</sup>): 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:
  - 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.).
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. 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.
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 term C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term 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 term 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 term 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 the Sections A through E, the following terms have the following meanings:

"Average" in Terms A.2.c and C.2 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R003 contained in permit to install 14-04014, issued on September 16, 2003.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R004) - Wood coating line and associated cleaning, washoff, and gluing operations - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.c.  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).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          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**

- 2.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).

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b** 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).
- 2.c** On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the 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.
- 2.d** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping 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) or 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:
  - a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
  - b. The volume, in 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 of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating and cleaning washoff and gluing materials employed, in pounds per month, (b)x(c);
  - e. 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
  - f. 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/m<sup>3</sup>): 370

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 7.203

MAGLC (ug/m<sup>3</sup>): 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:
  - 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.).
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. 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.
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 term C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term 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 term 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 term 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 the Sections A through E, the following terms have the following meanings:

"Average" in Terms A.2.c and C.2 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R004 contained in permit to install 14-04014, issued on September 16, 2003.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R005) - Wood coating line and associated cleaning, washoff, and gluing operations - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.c.  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).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          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**

- 2.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).

The permittee has existing records to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.b** 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).
- 2.c** On any day in which no PRM is employed in emissions units R001, R002, R003, R004 or R005, the 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.
- 2.d** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

## **B. Operational Restrictions**

None

## **C. Monitoring and/or Recordkeeping 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:
  - a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
  - b. The volume, in 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 of VOC per gallon, as applied;
  - d. The amount of VOC emitted for all coating and cleaning washoff and gluing materials employed, in pounds per month, (b)x(c);
  - e. 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
  - f. 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/m<sup>3</sup>): 370

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 7.203

MAGLC (ug/m<sup>3</sup>): 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:
  - 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.).
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. 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.
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 term C.2.
3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term 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 term 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 term 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 the Sections A through E, the following terms have the following meanings:

"Average" in Terms A.2.c and C.2 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R005 contained in permit to install 14-04014, issued on September 16, 2003.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R006) - Wood coating line and associated cleaning, washoff, and gluing operations (Prototype Coating Line) - Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See term and condition A.2.d.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2), OAC rule 3745-21-09(U)(2)(f), and OAC rule 3745-31-05(C).
OAC rule 3745-31-05(C) Synthetic Minor to Avoid Reasonably Available Control Technology (RACT) for Wood Furniture Manufacturing Operations  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.a.          See term and condition A.2.e.
OAC rule 3745-21-07(G)(2)	See term and condition A.2.b.
OAC rule 3745-21-09(U)(2)(f)	See term and condition A.2.c.

**2. Additional Terms and Conditions**

- 2.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. 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 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).

- 2.b** The VOC emissions from emissions unit R006, when coating wood products, shall not exceed 8 pounds per hour and 40 pounds per day.
- 2.c** The VOC emissions from emissions unit R006, when coating metal products, shall not exceed 75 pounds per day.
- 2.d** The annual VOC emissions (including cleaning material emissions ) from emissions unit R006 shall not exceed 0.20 ton per month and 2.4 tons per year for wood products and metal products.
- 2.e** 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.

The permittee has existing records of existing sources to demonstrate compliance with this limitation upon issuance of this permit modification.

- 2.f** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emissions limitations.

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.e:
  - 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 your Hamilton County Department of Environmental Services contact. This information does not have to be kept on an individual emissions unit basis.

- 2. The permittee shall maintain the following daily records for emissions unit R006:

- a. The company identification for each coating and cleaning material employed;
- b. The number of gallons of each coating and cleaning material employed for wood products;
- c. The number of gallons of each coating and cleaning material employed for metal products;
- d. The organic compound content of each coating and cleaning material, in pounds per gallon;
- e. The organic compound emission rate for each coating and cleaning material, in pounds per day, for wood products;
- f. The sum total organic compound emission rate for all coatings and cleaning material in pounds per day, for wood products;
- g. The total number of hours the coatings and cleaning material were applied in the operation for wood products;
- h. The average pounds per hour organic compound emission rate for wood products which results from dividing (f) above by (g) above;
- i. The organic compound emission rate for each coating and cleaning material, in pounds per day, for metal products; and
- j. The sum total organic compound emission rate for all coatings and cleaning material in pounds per day, for metal products.

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

3. The permittee shall maintain monthly records of the combined VOC emissions, in tons per month, for wood and metal products.
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:

- a. The name and identification number of each coating and cleaning, washoff and gluing material employed;
- b. The volume, in 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 of VOC per gallon, as applied;
- d. The amount of VOC emitted for all coating and cleaning, washoff and gluing materials employed, in pounds per month;
- e. 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
- f. 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 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 which shows an exceedance of the 8 pounds per hour and/or 40 pounds per day VOC emissions limits when coating wood products. The report shall include a copy of each such record along with the actual hourly VOC emissions rate and/or the actual daily VOC emissions as well as any corrective actions taken to address the exceedance.

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 which shows an exceedance of the 75 pounds per day VOC emissions when coating metal products. The report shall include a copy of each such record along with the actual VOC emissions when coating metal products as well as any corrective action taken to address the exceedance.

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 any monthly record which shows an exceedance of the 0.20 ton per month VOC emission limit. The report shall include a copy of each such record along with the actual VOC emissions when coating metal products as well as any corrective action taken to address the exceedance.

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.

4. 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).

5. 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.
6. 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.e. 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 term C.2.

3. Compliance with the VOC emission limitations outlined in term A.2.c shall be demonstrated by the required recordkeeping in term C.2.
4. Compliance with the VOC emission limitations outlined in term A.2.d shall be demonstrated by the required recordkeeping in term C.3.
5. Compliance with the 12-month rolling VOC emission limitation outlined in term A.2.a shall be demonstrated by the required recordkeeping in term C.4.
6. Compliance with the 12-month rolling HAP limitations outlined in term A.2.e shall be demonstrated by the record keeping in term C.1.

**F. Miscellaneous Requirements**

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

"Employed" shall mean the use of coatings and/or cleanup 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).

3. The terms and conditions in this permit to install shall supercede the terms and conditions for emissions unit R006 contained in permit to install 14-04014, issued on September 16, 2003.
4. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), 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"), to increase to above 1.0 ton per year.