



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
HOLMES COUNTY**

**CERTIFIED MAIL**

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov.  
Center

**Application No: 02-14155**

**DATE: 8/28/2001**

Merillat Industries Inc  
Kent Field  
One Merillat Ct  
Loudonville, OH 44842

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 by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

NEDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 8/28/2001  
Effective Date: 8/28/2001**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 02-14155

Application Number: 02-14155  
APS Premise Number: 0238000136  
Permit Fee: \$0  
Name of Facility: Merillat Industries Inc  
Person to Contact: Kent Field  
Address: One Merillat Ct  
Loudonville, OH 44842

Location of proposed air contaminant source(s) [emissions unit(s)]:

**One Merillat Ct  
Loudonville, Ohio**

Description of proposed emissions unit(s):

**Modification of PTI 02-14155 issued October 24, 2000, in order to change the emissions limit from OC to VOC.**

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

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.10 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## 2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## 3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## 4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## 5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition

declared invalid.

## 6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## 7. 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.

## 8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 thirty (30) days after commencing operation of the source(s) covered by this permit.

**11. 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.

## **B. State Only Enforceable 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 Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable 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 state-only required 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 quarterly, i.e., 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. 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.

### **4. 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.

## 5. 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.

## 6. 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.

## 7. 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.

**8. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**9. 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.

**10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. 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>
VOC	153.3

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

Modification Issued: 8/28/2001

**Part III - SPECIAL  
TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Conveyor system consisting of 4 coating booths and a flash-off oven, all controlled by a building enclosure and thermal oxidizer, for the application of stains and toners to wood cabinets.	OAC Rule 3745-31-05(A)(3)	See I.A.2.a through I.A.2.d below.
	OAC Rule 3745-21-07(G)(2)	The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.
	NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic Compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.

- 2.c** The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.
- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.
- If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.
- If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.
- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

## II. Operational Restrictions

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the

Emissions Unit ID: K001

average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3 hour average. The equivalent pressure drop is 0.007 inches of water, as a 3 hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the

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manufacturer's recommendations, with any modifications deemed necessary by the permittee.

4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and
  - b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
  - a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

Emissions Unit ID: K001

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;
  - f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);
  - h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months and then using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months and then using the overall control efficiency from the

most recent performance test that demonstrated that the emissions units were in compliance).

- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.

7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

Emissions Unit ID: K001

5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office with in 30 days of the first monthly record that shows the facility emitted more that 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

**V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:

1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:  
Compliance shall be determined by the value calculated in A.III.5.d. based upon the record keeping specified in Section A.III.5.
  - b. Emissions Limitation:

153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);.

Applicable Compliance Method:  
Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.
2. Formulation data or USEPA Method 24 shall be used to determine the OC contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent

destruction efficiency requirement for the thermal incinerator.

- c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

- 1. The terms and conditions of this permit replace, in whole, the requirements of PTI 02-07568 issued on September 29, 1993.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Conveyor system consisting of 4 coating booths and a flash-off oven all controlled by a building enclosure and thermal oxidizer, for the application of stains and toners to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

- 1. The permit to install for this emissions unit, K001, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still

Emissions Unit ID: K001

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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

#### IV. Reporting Requirements

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None.

**V. Testing Requirements**

None.

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**Modification Issued: 8/28/2001**

Emissions Unit ID: K001

**VI. Miscellaneous Requirements**

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K004 - Conveyor system consisting of Cefla spray booth and flash-off oven all controlled by a building enclosure and thermal oxidizer, for the application of sealer and topcoat to wood cabinets. Modified.	OAC Rule 3745-31-05(A)(3)	See I.A.2.a through I.A.2.d below.
	OAC Rule 3745-21-07(G)(2)	The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.
	NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic compound emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as

Emissions Unit ID: K004  
 defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

## II. Operational Restrictions

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

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3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm). The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

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

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;
  - b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
  - a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.
6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
  - a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;

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- f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);
  - h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily

Emissions Unit ID: K004

emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

## V. Testing Requirements

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

Emissions Unit ID: K004

- a. Emissions Limitation:  
1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).  
  
Applicable Compliance Method:  
Compliance shall be determined by the value calculated in A.III.5.d. based upon the record keeping specified in Section A.III.5.
- b. Emissions Limitation:  
153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);.  
  
Applicable Compliance Method:  
Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.
2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC

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rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**VI. Miscellaneous Requirements**

- 1. The terms and conditions of this permit replace, in whole, the requirements of PTI 02-07568 issued on September 29, 1993.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K004 - Conveyor system consisting of Cefla spray booth and flash-off oven all controlled by a building enclosure and thermal oxidizer, for the application of sealer and topcoat to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

- 1. The permit to install for this emissions unit, K004, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

**Modification Issued: 8/28/2001**

Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

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None.

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**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K005 - Conveyor system consisting of a Cefla spray booth and flash-off oven all controlled by a building enclosure and thermal oxidizer, for the application of sealer and topcoat to wood cabinets.	OAC Rule 3745-31-05(A)(3) OAC Rule 3745-21-07(G)(2)  NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.a through I.A.2.d below.  The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.  See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic Compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

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- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

**II. Operational Restrictions**

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

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3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;

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- b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;
  - f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);

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- h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAP can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

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include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

## **V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:  
 1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record

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keeping specified in Section A.III.5.

- b. Emissions Limitation:  
153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);.

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the VOC contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
- c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a

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consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

- 1. The terms and conditions of this permit replace, in whole, the requirements of PTI 02-07568 issued on September 29, 1993.

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**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K005 - Conveyor system consisting of a Cefla spray booth and flash-off oven all controlled by a building enclosure and thermal oxidizer, for the application of sealer and topcoat to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

1. The permit to install for this emissions unit, K005, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the

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

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

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None.

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**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K006 - Roll coat sealer/topcoat operation followed by a second sealer/topcoat application with UV curing, controlled by a building enclosure and thermal oxidizer.	OAC Rule 3745-31-05(A)(3)	See I.A.2.a through I.A.2.d below.
	OAC Rule 3745-21-07(G)(2)	The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.
	NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

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- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

**II. Operational Restrictions**

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

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3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;



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- f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);
  - h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

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include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

**V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:

Emissions Unit ID: K006

1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record keeping specified in Section A.III.5.

b. Emissions Limitation:

153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a

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consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**VI. Miscellaneous Requirements**

- 1. The terms and conditions of this permit replace, in whole, the requirements of PTI 02-07568 issued on September 29, 1993.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K006 - Roll coat sealer/topcoat operation followed by a second sealer/topcoat application with UV curing, controlled by a building enclosure and thermal oxidizer.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

1. The permit to install for this emissions unit, K006, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

Emissions Unit ID: K006

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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

#### **IV. Reporting Requirements**

None.

#### **V. Testing Requirements**

None.

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**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K007 - Conveyor system with two spray booths and flash-off oven controlled by a building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood cabinets.	OAC Rule 3745-31-05(A)(3) OAC Rule 3745-21-07(G)(2)  NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.a through I.A.2.d below.  The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.  See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic Compound (VOC)emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

Emissions Unit ID: K007

- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

## II. Operational Restrictions

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from

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- each OC emitting point unless otherwise specified by the Administrator;
- b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

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

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;

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- b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;
  - f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);

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- h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

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include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

## **V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:  
 1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record

keeping specified in Section A.III.5.

- b. Emissions Limitation:  
153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
- c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."
- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast

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District Office.

- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

- 1. The terms and conditions of this permit replace, in whole, the requirements of PTI 02-07568 issued on September 29, 1993.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K007 - Conveyor system with two spray booths and flash-off oven controlled by a building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

- 1. The permit to install for this emissions unit, K007, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

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Merillat Industries Inc

PTI Application: **02 14155**

**Modif**

Facility ID: **0238000136**

Emissions Unit ID: K007

None.

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Emissions Unit ID: K007

**VI. Miscellaneous Requirements**

None.

**Modification Issued: 8/28/2001**

### Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

#### A. State and Federally Enforceable Section

##### I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - Special Finishing System #2 consisting of two spray coating booths and a flash-off oven for the application of toners, stains, sealers and topcoats to wood cabinets.	OAC Rule 3745-31-05(A)(3)	See I.A.2.a through I.A.2.d below.
	OAC Rule 3745-21-07(G)(2)	The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.
	NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.e below.

##### 2. Additional Terms and Conditions

- 2.a Volatile Organic Compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

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- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

**II. Operational Restrictions**

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

Emissions Unit ID: K008

3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;

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- b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;
  - f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);

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- h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

Emissions Unit ID: K008

include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

## **V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:  
 1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record

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keeping specified in Section A.III.5.

- b. Emissions Limitation:  
153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);.

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
- c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a

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consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

None.

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**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - Special Finishing System #3 consisting of two spray coating booths and a flash-off oven for the application of toners, stains, sealers and topcoats to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

1. The permit to install for this emissions unit, K008, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Facility ID: **0238000136**

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

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Merillat Industries Inc

PTI Application: ~~02 14155~~

**Modif**

Facility ID: **0238000136**

Emissions Unit ID: K008

None.

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Emissions Unit ID: K008

**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K009 - Test booth consisting of two coating booth and a flash-off oven all controlled by the building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood.	OAC Rule 3745-31-05(A)(3)	See I.A.2.a through I.A.2.d below.
	OAC Rule 3745-21-07(G)(2)	The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.
	NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic Compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

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- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

**II. Operational Restrictions**

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

Emissions Unit ID: K009

3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;

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- b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
    - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
  5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
    - a. the company identification for each coating and cleanup material employed;
    - b. the number of gallons of each coating and cleanup material employed;
    - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
    - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
    - a. the name and identification number of each coating, as applied;
    - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
    - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
    - d. the number of gallons of each coating employed;
    - e. the name and identification of each cleanup material employed;

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- f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);
  - h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

#### **IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

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include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

**V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:

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1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record keeping specified in Section A.III.5.

b. Emissions Limitation:

153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
  - c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a

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consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast District Office.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

**VI. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K009 - Test booth consisting of one coating booth and a flash-off oven controlled by the building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

- 1. The permit to install for this emissions unit, K009, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

#### **IV. Reporting Requirements**

None.

#### **V. Testing Requirements**

None.

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**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K010 - Special Finishing System #3 consisting of two spray booths and a flash-off oven all controlled by the building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood cabinets.	OAC Rule 3745-31-05(A)(3) OAC Rule 3745-21-07(G)(2)  NESHAP (40 CFR 63, subpart JJ, 63.800 (b) )	See I.A.2.a through I.A.2.d below.  The requirements of this rule are less stringent than the requirements established by OAC Rule 3745-31-05(A)(3) stated in I.A.2.c and I.A.2.d below.  See I.A.2.e below.

**2. Additional Terms and Conditions**

- 2.a Volatile Organic Compound (VOC) emissions from all coating and cleanup material shall not exceed 1008 pounds per day from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.b Volatile Organic Compound emissions from all coatings and cleanup materials shall not exceed 153.3 tons per year from the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010.
- 2.c The building enclosure shall be designed and operated as a permanent total enclosure as defined by US EPA Method 204. The use of this building enclosure, as defined in Reference Method 204, provides for 100% capture of VOC emissions and thus shall be assumed to capture 100% of OC emissions.

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- 2.d** The permittee has the option to perform an additional demonstration to show that the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation (i.e., the air flow through the PTE to the control device was always maintained under negative pressure even when all additional egress points (non-natural draft openings) which could affect the PTE were opened) in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE can not be compromised, under normal plant conditions, when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration specified in Section A.I.2.f to show that the PTE can not be compromised or the additional demonstration indicates that the PTE can be compromised, the permittee will be required to comply with the differential pressure operational restriction, monitoring, record keeping, and reporting requirements specified below (see Sections A.II, A.III, and A.IV below) to ensure the ongoing integrity of the PTE.

- 2.e** The permittee shall install and maintain an incineration system to handle the Organic Compound (OC) emission from the permanent total enclosure. The incinerator system shall have an OC destruction efficiency of at least 90% by weight.
- 2.f** If the facility's rolling 12-month emission of Hazardous Air Pollutants (HAPs) exceeds 5 tons per year of each individual HAP or 12.5 tons per year of total, combined HAPs, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR Part 63, Subpart JJ, within 365 days after the exceedance. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Ohio EPA Northeast District office.

## II. Operational Restrictions

1. The permittee shall operate the dry filters whenever this emissions unit is in operation.
2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
3. This emissions unit shall be totally enclosed such that OC emissions are captured and contained. Compliance with the following criteria, identified by USEPA Method 204, shall be met by the permittee:
  - a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from

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- each OC emitting point unless otherwise specified by the Administrator;
- b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm), as a 3-hour average. The equivalent pressure drop is 0.007 inches of water, as a 3-hour average. The direction of air flow through all NDO's shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and
  - e. all OC emissions from the coating line must be captured and contained for discharge through a control device.

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

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the differential pressure between the inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the combustion temperature. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall collect and record the following information for each day for the control equipment:
  - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;

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- b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance; and
  - c. all 3-hour blocks of time during which the average static pressure differential across the building enclosure was less than the 0.007 inch water, when the emissions unit was in operation.
5. The permittee shall collect and record the following information for each day for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the VOC content of each coating and cleanup material, in pounds per gallon; and
  - d. the total controlled VOC emissions rate for all coatings and cleanup materials, in pounds per day (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).

Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.

6. The permittee shall collect and record the following information each month for the building enclosure that houses emissions units K001, K004, K005, K006, K007, K008, K009 and K010:
- a. the name and identification number of each coating, as applied;
  - b. the individual HAP \* content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied;
  - c. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b);
  - d. the number of gallons of each coating employed;
  - e. the name and identification of each cleanup material employed;
  - f. the individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;
  - g. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f);

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- h. the number of gallons of each cleanup material employed;
  - i. the total individual HAP emissions after control for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (for each HAP the sum of b times d for each coating and the sum of f times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance); and
  - j. the total combined HAP emissions after control from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (the sum of c times d for each coating plus the sum of g times h for each cleanup material for the previous 12 months, using the overall control efficiency from the most recent performance test that demonstrated that the emissions units were in compliance).
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line by line bases.
7. The permittee shall maintain copies of all the records detailed above at the facility for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any daily record showing that the emissions of VOC from the building enclosure exceeded the daily emissions limit listed above. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
3. The permittee shall notify the Director (Ohio EPA, Northeast District Office) in writing of any record showing that the pressure drop across the building enclosure was less than 0.007 inches water as a 3-hour average, when the emissions unit was in operation. The notification shall

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include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.

4. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.
5. The permittee shall submit quarterly deviations (excursion) reports which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
6. The permittee shall submit quarterly deviation (excursion) reports in accordance with paragraph 3.b of the General Terms and Conditions of this permit.
7. The permittee shall also submit annual reports which specify the following information for the previous calendar year:
  - a. the total controlled VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);
  - b. the total controlled emissions of each single HAP from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010); and
  - c. the total controlled emissions of total combined HAPs from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

These reports shall be submitted by January 31 of each year.

8. The permittee shall notify this office within 30 days of the first monthly record that shows the facility emitted more than 5 tons of a single HAP per rolling, 12-month period or more than 12.5 tons of combined HAPs per rolling, 12-month period.

## **V. Testing Requirements**

1. Compliance with the allowable emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitation:  
1008 pounds per day of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010).

Applicable Compliance Method:

Compliance shall be determined by the value calculated in A.III.5.d. based upon the record

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keeping specified in Section.A.III.5.

- b. Emissions Limitation:  
153.3 tons per year of VOC emissions from the building enclosure (emissions units K001, K004, K005, K006, K007, K008, K009 and K010);.

Applicable Compliance Method:

Compliance shall be based on the record keeping as specified in Section A.III.5 and shall be the sum of the 365 daily emission rates for the calendar year.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the coatings and cleanup materials employed in the emissions unit.
3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months after all emissions units included in this permit are installed.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for organic compounds and the ninety (90) percent destruction efficiency requirement for the thermal incinerator.
- c. The following test method(s) shall be employed to demonstrate compliance with the destruction efficiency requirement for the thermal incinerator: Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. The test method and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."
- e. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA, Northeast

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District Office.

- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northeast District Office.

## **VI. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K010 - Special Finishing System #3 consisting of two spray booths and a flash-off oven all controlled by the building enclosure and thermal oxidizer, for the application of toners, stains, sealers and topcoats to wood cabinets.		Compliance with Air Toxic Policy

**2. Additional Terms and Conditions**

2.a None.

**II. Operational Restrictions**

None.

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

- 1. The permit to install for this emissions unit, K010, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant:	Acetone	Ethyl benzene	Isobutyl acetate	Isopropyl acetate	Isopropyl alcohol
TLV (mg/m <sup>3</sup> ):	1780	434	713	1040	983
Maximum Hourly Emission Rate (lbs/hr):	7.51	1.86	6.00	5.10	2.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	52.4	12.9	41.89	35.6	14.9
MAGLC (ug/m <sup>3</sup> ):	42380	10330	16980	24760	23400

Pollutant:	Methyl n-amyl ketone	Methyl propyl ketone	Stoddard solvent	Toluene	1,2,4-Trimethyl benzene	Xylene
TLV (mg/m <sup>3</sup> ):	233	705	525	188	123	434
Maximum Hourly Emission Rate (lbs/hr):	3.67	1.92	7.25	1.14	3.83	8.17
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m <sup>3</sup> ):	25.6	13.4	50.6	7.94	26.8	57.0
MAGLC (ug/m <sup>3</sup> ):	5550	16790	12500	4480	2930	10330

- 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

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None.

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**VI. Miscellaneous Requirements**

None.