



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43215

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www.epa.ohio.gov

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P.O. Box 1049  
Columbus, OH 43216-1049

10/28/2009

Mr. Ron Fishking  
Amtekco Industries Incorporated  
1205 Refugee Road  
Columbus, OH 43207

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0125043113  
Permit Number: P0105401  
Permit Type: Renewal  
County: Franklin

Certified Mail

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc).

Sincerely,

*Michael W. Ahern*  
Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-CDO

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
Amtekco Industries Incorporated**

Facility ID: 0125043113  
Permit Number: P0105401  
Permit Type: Renewal  
Issued: 10/28/2009  
Effective: 10/28/2009  
Expiration: 10/28/2014





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install and Operate**  
for  
Amtekco Industries Incorporated

**Table of Contents**

Authorization ..... 1

A. Standard Terms and Conditions ..... 3

    1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4

    2. Who is responsible for complying with this permit? ..... 4

    3. What records must I keep under this permit? ..... 4

    4. What are my permit fees and when do I pay them?..... 4

    5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 4

    6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 5

    7. What reports must I submit under this permit? ..... 5

    8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? ..... 5

    9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5

    10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 5

    11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 6

    12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 6

    13. Can I transfer this permit to a new owner or operator? ..... 6

    14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 7

    15. What happens if a portion of this permit is determined to be invalid? ..... 7

B. Facility-Wide Terms and Conditions ..... 8

C. Emissions Unit Terms and Conditions ..... 12

    1. K001, Coating Application Room..... 13

    2. P001, Woodworking Operations with Dust Collector ..... 20

    3. R001, Lamination application for wood furniture..... 24

    4. R002, Wood furniture coating application room..... 29





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0105401  
**Facility ID:** 0125043113  
**Effective Date:** 10/28/2009

## Authorization

Facility ID: 0125043113  
Application Number(s): A0038244  
Permit Number: P0105401  
Permit Description: One spray booth with filter for wood and metal furniture parts coating, several wood working operations vented to baghouse and several adhesive spray stations in assembly area.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 10/28/2009  
Effective Date: 10/28/2009  
Expiration Date: 10/28/2014  
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15  
This document constitutes issuance to:

Amtekco Industries Incorporated  
1205 Refugee Road  
Columbus, OH 43207

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



## Authorization (continued)

Permit Number: P0105401  
Permit Description: One spray booth with filter for wood and metal furniture parts coating, several wood working operations vented to baghouse and several adhesive spray stations in assembly area.

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

- |                                   |  |
|-----------------------------------|--|
| <b>Emissions Unit ID:</b>         | <b>K001</b>                                |
| Company Equipment ID:             | Coating Application Room                   |
| Superseded Permit Number:         |  |
| General Permit Category and Type: | Not Applicable                             |
| <b>Emissions Unit ID:</b>         | <b>P001</b>                                |
| Company Equipment ID:             | Woodworking Operations with Dust Collector |
| Superseded Permit Number:         |  |
| General Permit Category and Type: | Not Applicable                             |
| <b>Emissions Unit ID:</b>         | <b>R001</b>                                |
| Company Equipment ID:             | Lamination application for wood furniture  |
| Superseded Permit Number:         |  |
| General Permit Category and Type: | Not Applicable                             |
| <b>Emissions Unit ID:</b>         | <b>R002</b>                                |
| Company Equipment ID:             | Wood furniture coating application room    |
| Superseded Permit Number:         |  |
| General Permit Category and Type: | Not Applicable                             |



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

**Facility ID:** 0125043113

**Effective Date:** 10/28/2009

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC



rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

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**Effective Date:** 10/28/2009

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

**Facility ID:** 0125043113

**Effective Date:** 10/28/2009

## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

(1) Facility-wide emissions shall not exceed 57.6 tons OC, 9.9 tons individual hazardous air pollutant (HAP) emissions and 24.9 tons total combined hazardous air pollutant (HAPs) emissions per rolling, 12-month period.

Facility-wide emissions shall be determined from a summation of monthly emissions from the following emission units: K001, R001, R002 and all emissions units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05).

Therefore, the provisions for Title V permitting and the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wood Furniture Manufacturers MACT in 40 CFR Part 63 Subpart JJ will not be applicable.

<sup>1</sup>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.

(2) The permittee shall collect and record the following information for emissions units K001, R001, and R002 for each month:

a. the name and identification number for each coating material employed;

b. the individual HAP content for each HAP of each coating in pounds of individual HAP per gallon of coating employed;

c. the total combined HAP content of each HAP of each coating in pounds of combined HAPs per gallon of coating employed (sum of all the individual HAP contents from b);

d. a summation of the number of gallons of each coating material employed during the month, plus the rolling, 12-month summation of the total number of gallons of all coatings employed;

e. the name and identification number for each clean up material employed;

f. the individual HAP content for each HAP of each clean up material in pounds of individual HAP per gallon of clean up material employed;

g. the total combined HAP content of each HAP of each clean up material in pounds of combined HAPs per gallon of clean up material employed (sum of all the individual HAP contents from f);



- h. a summation of the number of gallons of each cleanup material employed during the month, plus the rolling, 12-month summation of the total number of gallons of all cleanup materials employed;
- i. the total individual HAP emissions for each HAP from all coatings and clean up materials employed, in pounds or tons month and pounds or tons per rolling 12 month period (for each HAP the sum of b time d for each coating and the sum of f times h for each clean up material); and
- j. the total combined HAP emissions for each HAP from all coatings and clean up materials employed, in pounds or tons month and pounds or tons per rolling 12 month period (for each HAP the sum of c time d for each coating and the sum of g times h for each clean up material).

<sup>1</sup>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 basis.

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:  
  
(2)a, c(1),
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

[OAC rule 3745-15-03(B)(1)(b) and OAC rule 3745-15-03(C)]

- (4) Compliance with the emission limitations in b)(1)a shall be determined in accordance with the following methods:
  - a. Emissions Limitation:



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

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**Effective Date:** 10/28/2009

The individual and combined HAP<sup>1</sup> emissions from emissions units K001, R001 and R002 shall not exceed 9.9 tons and 24.9 tons, respectively, as a rolling, 12-month summation.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon a rolling, 12-month summation of the record keeping requirements in 1.b)(2).



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

**Facility ID:** 0125043113

**Effective Date:** 10/28/2009

## **C. Emissions Unit Terms and Conditions**



**1. K001, Coating Application Room**

**Operations, Property and/or Equipment Description:**

Metal Furniture Coating Application

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. See d)(8), d)(9), d)(10) and (e)2.
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. See 1.b)(1), 1.b)(2), 1.b)(3) and 1.b)(4).
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-12026 issued May 30, 2006)	<p>Volatile Organic compound (VOC) emissions from this emissions unit shall not 2.8 tons/year, including cleanup materials.</p> <p>The requirements established pursuant to this rule also include the requirements of OAC rule 3745-21-09(l)(3)(a), OAC rule 3745-17-07(A)(1) and OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V and MACT)	See 1.b)(1) above.
c.	OAC rule 3745-17-11(C)	See (2)a, c)(1) and d)(1) – (5) below.
d.	OAC rule 3745-17-07(A)(1)	See (2)b below.
e.	OAC rule 3745-21-09(l)(3)(a)	See (2)c below.



(2) Additional Terms and Conditions

- a. The permittee shall vent all emissions from coating operation to the dry filtration system, whenever this emissions unit is in operation.
- b. Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
- c. Exempted from the requirements of paragraph (l)(1) of this rule are the prime coat, topcoat, or single coat coating lines for metal furniture at a facility, only if all such lines, in combination, emit less than fifteen pounds of VOC per day (before add-on controls).

c) Operational Restrictions

- (1) The permittee shall operate the dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer’s recommendations, instructions, and/or operating manual, with any modifications deemed necessary by the permittee.

[OAC rule 3745-17-11(C)(1) and (2)(b)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day for all metal furniture coating lines at the facility:
  - a. the name and identification number of each coating, as applied;
  - b. the mass of VOC per volume (excluding water and exempt solvents) and the volume of each coating (excluding water and exempt solvents), as applied; and
  - c. the total VOC emissions from the coatings employed, as calculated using the following equation:

$$T = A_1B_1 + A_2B_2 + \dots + A_nB_n$$

where:

- T = total VOC emissions from the combined coating lines before the application of capture systems and control devices, in units of pounds per day;
- n = number of different coatings applied in the coating lines at the facility;
- i = subscript denoting an individual coating;
- A<sub>i</sub> = mass of VOC per volume of coating (i) (excluding water and exempt solvents), as applied, in units of pounds VOC per gallon; and
- B<sub>i</sub> = volume of coating (i) (excluding water and exempt solvents), as applied, in units of gallons per day.

These records shall be maintained for a period of not less than three years.

[OAC rule 3745-21-09(B)(3)(b)]

- (2) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:



- a. the total VOC emissions from the coatings applied during the month, i.e., the summation of the VOC emissions calculated for “T” above for each day of operations; or the maximum VOC emissions calculated for “T” during the month times the number of days of operation;
- b. the name and identification of each cleanup material employed;
- c. the VOC content of each cleanup material, in pounds per gallon;
- d. the number of gallons of each cleanup material employed;
- e. the total VOC emission rate from all cleanup materials, i.e., the summation of the products of “e” times “f” for all cleanup materials employed;
- f. the total VOC emissions from all coatings and cleanup materials employed, in pounds or tons, the sum of “a” and “e”; and
- g. a summation of the total VOC emissions by addition of the monthly total VOC to the previous 11 month VOC emissions, to develop a rolling, 12-month summation of VOC emissions.

These monthly records shall be maintained for the purpose of determining annual VOC emissions for the emissions unit.

- (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC 3745-17-11(C)(2)(a)]

- (4) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

[OAC rule 3745-17-11(C)(2)(c)]

- (5) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

[OAC rule 3745-17-11(C)(2)(c)]

- (6) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:
  - a. the date of the inspection;



- b. a description of each/any problem identified and the date it was corrected;
- c. a description of any maintenance and repairs performed; and
- d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC rule 3745-17-11(C)(2)(d) and (f)]

- (7) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

[OAC rule 3745-17-11(C)(2)(f) and (g) for OAC rule 3745-17-11(C)(1)].

- (8) The PTI for this emissions unit, K001, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).



- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “X” hours per day and “Y” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

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

Toxic Contaminant: toluene, xylene

TLV (mg/m<sup>3</sup>): 188, 434

Maximum Hourly Emission Rate (lbs/hr): 2.8, 3.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 77.5, 99.1

MAGLC (ug/m<sup>3</sup>): 4,476, 10,309

The permittee, has demonstrated that emissions of toluene and xylene from emissions unit(s) K001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification"



under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

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

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

(1) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the combined VOC emissions (excluding emissions from cleanup materials) from all of the metal furniture coating lines at the facility are equal to or greater than 15 pounds of VOC per day (before add-on controls). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

[OAC rule 3745-21-09(B)(3)(c)]

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee



shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

[OAC rule 3745-15-03(B)(2) and OAC rule 3745-15-03(D)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1)a shall be determined in accordance with the following methods:

a. Emissions Limitation:

VOC emissions shall not exceed 15 lbs/day.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(1)c.

b. Emissions Limitation:

VOC emissions shall not exceed 2.8 tons per year, including cleanup solvent usage.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(2)g.

c. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

When requested by the Ohio EPA, compliance with the above visible emission limitation shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

g) Miscellaneous Requirements

(1) None.



**2. P001, Woodworking Operations with Dust Collector**

**Operations, Property and/or Equipment Description:**

Woodworking Operations with Dust Collector

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-12026 issued May 30, 2006)	Particulate emissions (PE) from the bag house stack shall not exceed 2.2 pounds per hour and 9.6 tons per year.  See (2)a below.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
b.	OAC rule 3745-17-07(A)(1)	See (2)b below.
c.	OAC rule 3745-17-11(B)(1)	See (2)c below.

(2) Additional Terms and Conditions

a. The permittee shall operate and maintain the sawdust collection system and vent emissions to the baghouse according to manufactures specifications to maximize capture efficiency and control capabilities.



- b. Visible PE from the bag house stack shall not exceed 20%, as a 6- minute average, except as provided by rule.
  - c. The PE limitation established pursuant to OAC rule 3745-31-05 above is more stringent than the emission limitation established by this rule.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 4.0 inches of water.  
  
[OAC rule 3745-31-05(A)(3)]
  - (2) The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emission unit is in operation. The monitoring equipment shall be installed, calibrated, operates and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the pressure drop across the bag house on a daily basis.
- e) Reporting Requirements
- (1) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
    - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
    - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
    - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
    - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
    - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
  - [OAC rule 3745-15-03(B)(2) and OAC rule 3745-15-03(D)]
  - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee



shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

[OAC rule 3745-15-03(B)(2) and OAC rule 3745-15-03(D)]

f) Testing Requirements

(1) Compliance with the emission limitations in sections A.1. and A.2 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PE from the baghouse stack shall not exceed 2.2 lbs/hour.

Applicable Compliance Method:

The hourly PE emission rate may be determined by calculation at an air flow rate of 12,700 actual cubic foot per minute (acfm) multiplied by an outlet loading of 0.02 grains/dry standard cubic foot (dscf) multiplied by 1 lb/7,000 grains multiplied by 60 minutes/1hour equals 2.2 lbs/hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

PE shall not exceed 9.6 tons per year.

Applicable Compliance Method:

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8,760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the hourly emission limitation.

c. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105401

**Facility ID:** 0125043113

**Effective Date:** 10/28/2009

g) Miscellaneous Requirements

(1) None.



**3. R001, Lamination application for wood furniture**

**Operations, Property and/or Equipment Description:**

Wood Furniture Adhesive Coating Application

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. See d)(4), d)(4), d)(6) and (e)2.
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. See 1.b)(1), 1.b)(2), 1.b)(3) and 1.b)(4).
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-12026 issued May 30, 2006)	Organic compound (OC) emissions from this emissions unit shall not exceed 7.7 lbs/hour and 33.73 tons/year, including cleanup materials.  The requirements established pursuant to this rule also include the requirements of OAC rule 3745-21-07(G)(2) and OAC rule 3745-31-05(D).
b.	OAC rule 3745-21-07(G)(2)	See (2)a & b below.
c.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V and MACT)	See 1.b)(1) above.

- (2) Additional Terms and Conditions
  - a. To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.



Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision: (2)a
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall collect and record the following information for each month for the coating operation:
    - 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 organic compound content of each coating and cleanup material, in pounds per gallon;
    - d. the total organic compound emission rate for all coatings and cleanup materials, in pounds per month;
    - e. the total number of hours the emissions unit was in operation; and
    - f. the average hourly organic compound emission rate for all coatings and cleanup materials, i.e., (d / e), in pounds per hour (average and
    - g. a rolling, 12-month summation of OC emissions, by addition of the monthly total OC emissions to the previous 11 month OC emissions.

The permittee shall calculate and record the total annual OC emissions from coatings and cleanup materials, [i.e., the sum of the daily OC emission rates from the coating

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]
  - (2) The PTI for this emissions unit, R001, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The



predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

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

Toxic Contaminant: toluene, hexane

TLV (mg/m3): 188, 176

Maximum Hourly Emission Rate (lbs/hr): 0.8, 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23.2, 23.2

MAGLC (ug/m3): 4,476, 4,190

The permittee, has demonstrated that emissions of toluene and hexane from emissions unit(s) K001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall



not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final [XXXX8] prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);



- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

[OAC rule 3745-15-03(B)(2) and OAC rule 3745-15-03(D)]

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1)a shall be determined in accordance with the following method(s):

- a. Emissions Limitation:

OC emissions shall not exceed 7.7 lbs/hour.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(1)f.

- b. Emission Limitation:

OC emissions shall not exceed 33.73 tons per year.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(1)g.

g) Miscellaneous Requirements

- (1) None.



**4. R002, Wood furniture coating application room**

**Operations, Property and/or Equipment Description:**

Wood Furniture Coating Room

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. See d)(8), d)(9), d)(10) and (e)2.
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. See 1.b)(1), 1.b)(2), 1.b)(3) and 1.b)(4).
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-12026 issued May 30, 2006)	Organic compound (OC) emissions from this emissions unit shall not exceed 4.8 lbs/hour and 21.02 tons per year, including cleanup materials.  See (2)a below.  The requirements established pursuant to this rule also include the requirements of OAC rule 3745-21-07(G)(2), OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(C).
	OAC rule 3745-21-07(G)(2)	See (2)a & b below.
	OAC rule 3745-17-11(C)	See (2)c below.
	OAC rule 3745-17-07(A)(1)	See (2)d below.
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V and MACT)	See 1.b)(1) above.



(2) Additional Terms and Conditions

- a. To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision: (2)b
- c. The permittee shall vent all emissions from coating operation to the dry filtration system, whenever this emissions unit is in operation.
- d. Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.

c) Operational Restrictions

- (1) The permittee shall operate the dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

[OAC rule 3745-17-11(C)(1) and (2)(b)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information for each day for the coating operation:
  - 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 organic compound content of each coating and cleanup material, in pounds per gallon;
  - d. the total organic compound emission rate for all coatings and cleanup materials, in pounds per day;
  - e. the total number of hours the emissions unit was in operation;
  - f. the average hourly organic compound emission rate for all coatings and cleanup materials, i.e., (d / e), in pounds per hour (average); and



- g. a rolling, 12-month summation of OC emissions, by addition of the monthly total OC emissions to the previous 11 month OC emissions.

The permittee shall calculate and record the total annual OC emissions from coatings and cleanup materials, [i.e., the sum of the daily OC emission rates from the coating

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

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC 3745-17-11(C)(2)(a)]

- (3) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

[OAC rule 3745-17-11(C)(2)(c)]

- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

[OAC rule 3745-17-11(C)(2)(c)]

- (5) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:
  - a. the date of the inspection;
  - b. a description of each/any problem identified and the date it was corrected;
  - c. a description of any maintenance and repairs performed; and
  - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC rule 3745-17-11(C)(2)(d) and (f)]

- (6) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated



according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

[OAC rule 3745-17-11(C)(2)(f) and (g) for OAC rule 3745-17-11(C)(1)].

(7) The PTI application for this/these emissions unit(s), R001, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

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

Toxic Contaminant: toluene, hexane



TLV (mg/m3): 188, 176

Maximum Hourly Emission Rate (lbs/hr): 0.8, 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23.2, 23.2

MAGLC (ug/m3): 4,476, 4,190

The permittee, has demonstrated that emissions of toluene and hexane from emissions unit(s) K001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final [XXXX8] prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70



- (9) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70.

e) Reporting Requirements

- (1) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the combined VOC emissions (excluding emissions from cleanup materials) from all of the miscellaneous metal parts coating lines at the facility are equal to or greater than 15 pounds of VOC per day (before add-on controls). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

[OAC rule 3745-21-09(B)(3)(c)]

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

[OAC rule 3745-15-03(B)(2) and OAC rule 3745-15-03(D)]

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a shall be determined in accordance with the following methods:
- a. Emissions Limitation:



OC emissions shall not exceed 4.8 lbs/hour.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(1)f.

b. Emissions Limitation:

OC emissions shall not exceed 21.0 tons per year, including cleanup solvent usage.

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(1)g.

c. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

When requested by the Ohio EPA, compliance with the above visible emission limitation shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

g) Miscellaneous Requirements

(1) None.