



1/6/2014

Certified Mail

David Allen Miller  
Schrock's Woodcrafts Inc Plant 2  
3360 SR 39  
PO BOX 138  
WALNUT CREEK, OH 44687

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0238000150  
Permit Number: P0112864  
Permit Type: Renewal  
County: Holmes

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

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

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Schrock's Woodcrafts Inc Plant 2**

Facility ID:	0238000150
Permit Number:	P0112864
Permit Type:	Renewal
Issued:	1/6/2014
Effective:	1/6/2014
Expiration:	1/6/2019





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Schrock's Woodcrafts Inc Plant 2

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**Final Permit-to-Install and Operate**  
Schrock's Woodcrafts Inc Plant 2  
**Permit Number:** P0112864  
**Facility ID:** 0238000150  
**Effective Date:** 1/6/2014

## Authorization

Facility ID: 0238000150  
Application Number(s): A0046632, A0046633, A0046634  
Permit Number: P0112864  
Permit Description: Renewal FEPTIO for woodworking and coating operations.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 1/6/2014  
Effective Date: 1/6/2014  
Expiration Date: 1/6/2019  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Schrock's Woodcrafts Inc Plant 2  
4981 TWP RD 401  
WALNUT CREEK, OH 44687

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

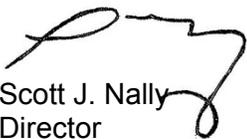
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

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

  
Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0112864  
 Permit Description: Renewal FEPTIO for woodworking and coating operations.

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>B003</b>        |
| Company Equipment ID:             | Sawdust Boiler     |
| Superseded Permit Number:         | P0084725           |
| General Permit Category and Type: | Not Applicable     |
| <b>Emissions Unit ID:</b>         | <b>P001</b>        |
| Company Equipment ID:             | Cabinetmaker Torit |
| Superseded Permit Number:         | P0084724           |
| General Permit Category and Type: | Not Applicable     |
| <b>Emissions Unit ID:</b>         | <b>P002</b>        |
| Company Equipment ID:             | wood waste silo    |
| Superseded Permit Number:         | P0084724           |
| General Permit Category and Type: | Not Applicable     |
| <b>Emissions Unit ID:</b>         | <b>R010</b>        |
| Company Equipment ID:             | Booth R010         |
| Superseded Permit Number:         | P0084726           |
| General Permit Category and Type: | Not Applicable     |

**Group Name: Spray Booths Group 1**

<b>Emissions Unit ID:</b>	<b>R004</b>
Company Equipment ID:	Booth R004
Superseded Permit Number:	P0084723
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>R005</b>
Company Equipment ID:	Booth R005
Superseded Permit Number:	P0084723
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>R009</b>
Company Equipment ID:	Booth R009
Superseded Permit Number:	P0084723
General Permit Category and Type:	Not Applicable

**Group Name: Spray Booths Group 2**

<b>Emissions Unit ID:</b>	<b>R006</b>
Company Equipment ID:	Booth R006
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>R007</b>
Company Equipment ID:	Booth R007
Superseded Permit Number:	P0084723
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>R008</b>
Company Equipment ID:	Booth R008
Superseded Permit Number:	P0084723
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Schrock's Woodcrafts Inc Plant 2  
**Permit Number:** P0112864  
**Facility ID:** 0238000150  
**Effective Date:** 1/6/2014

## **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 of this permit 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 [DO/LAA] 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.

**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.



**Final Permit-to-Install and Operate**  
Schrock's Woodcrafts Inc Plant 2  
**Permit Number:** P0112864  
**Facility ID:** 0238000150  
**Effective Date:** 1/6/2014

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



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

Schrock's Woodcrafts Inc Plant 2

**Permit Number:** P0112864

**Facility ID:** 0238000150

**Effective Date:** 1/6/2014

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) None.



**Final Permit-to-Install and Operate**  
Schrock's Woodcrafts Inc Plant 2  
**Permit Number:** P0112864  
**Facility ID:** 0238000150  
**Effective Date:** 1/6/2014

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



**1. B003, Sawdust Boiler**

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

15.58 mmBtu/hr (sawdust) wood-fired boiler with a multi-cyclone to control PE

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 operation(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 are identified below. 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#: 02-4910)	Particulate emissions (PE) shall not exceed 0.20 pounds per MMBtu and 13.65 tons per year.  Nitrogen oxide emissions (NOx) shall not exceed 0.49 pounds per MMBtu and 33.44 tons per year.  Carbon monoxide emissions (CO) shall not exceed 0.60 pounds per MMBtu and 40.94 tons per year
b.	OAC rule 3745-17-10 (C)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule.
d.	40 CFR Part 63 subpart JJJJJ	See b)(2)a.

(2) Additional Terms and Conditions

- a. The permittee is advised that this facility may be subject to the "Generally Available Control Technology" (GACT) requirements under 40 CFR Part 63, Subpart JJJJJ, and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial/Commercial/Institutional Boilers. The U.S. EPA is responsible for the administration of the requirements of this rule at this time. It should be noted that the enforcement authority of the GACT requirements is not delegated to Ohio EPA at the time of this permit processing. The complete requirements of this rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.
- b. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08 (it is located in Holmes County). Therefore, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- c. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- d. The emissions from this emissions unit shall be vented to the multiclone at all times the emissions unit is in operation.

c) Operational Restrictions

- (1) The permittee shall assure that the pressure drop across the multiclone is maintained within manufacturer's specified range while the emissions unit is in operation.
- (2) The multiclone shall be operated in such a manner as to provide sufficient volumetric flow rate to eliminate visible particulate emissions at the point(s) of capture to the extent possible using all good engineering practices.

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 multiclone is between 1.0 to 8.0 inches of water.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the multiclone when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the multiclone on daily basis. The



monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the multiclone is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA, Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.



- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item d above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (4) The permittee shall maintain a daily boiler log documenting daily start and end times for each of the following:

- a. boiler start-up;
- b. boiler shutdown;
- c. each malfunction of the boiler and/or associated control equipment;
- d. the intermittent soot-blowing operations (cleaning of heat transfer surface with pressurized air or steam);
- e. the intermittent ash removal operations (dumping or pulling of ash); and
- f. the commencement of increased fuel firing from a banked condition.

- (5) The permittee shall maintain monthly records of the total amount of wood waste fired for this emissions unit.



- (6) The permittee shall maintain a control device operation and maintenance log that includes the following:
  - a. all times that the control device was not operating while the emissions unit was in operation; and
  - b. the date and results of all operational and maintenance checks for the control device.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA, Northeast District Office 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

The permittee shall submit with the PER, reports identifying the following:

- a. identify all days during which any visible particulate emissions were observed from the multiclone serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions;
- b. identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions;
- c. identify all days during which a daily boiler log was not maintained;
- d. identify all days during which the total amount of wood waste fired was not recorded;
- e. 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 closed loop system;
- f. each incident of deviation described in "a" (above) where a prompt investigation was not conducted; and
- g. all periods of time that the boiler was not vented to the closed loop system

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emissions Limitations:

Particulate emissions (PE) shall not exceed 0.20 pound per MMBtu.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with U.S. EPA Methods 1-5, 9 and 22 of 40 CFR, Part 60, Appendix A.

b. Emissions Limitations:

Particulate emissions (PE) shall not exceed 13.65 tons per year.

Applicable Compliance Method:

Compliance with the annual emissions limitation for PE was based on multiplication of the short term allowable PE emissions limitation (0.20 lb/MMBtu) by the maximum heat input (15.58 MMBtu/hr) by the maximum allowable hours of operation (8760 hrs) and divide by 2000 pound per ton. Therefore, if compliance is shown with the allowable short-term emissions limitation, compliance shall be shown with the annual emissions limitation.

c. Emissions Limitations:

Nitrogen oxide emissions (NOx) shall not exceed 0.49 pound per MMBtu.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with U.S. EPA Methods 1-4 and 7 or 7E of 40 CFR, Part 60, Appendix A.

d. Emissions Limitations:

Nitrogen oxide emissions (NOx) shall not exceed 33.44 tons per year.

Applicable Compliance Method:

Compliance with the annual emissions limitation for PE was based on multiplication of the short term allowable PE emissions limitation (0.49 lb/MMBtu) by the maximum heat input (15.58 MMBtu/hr) by the maximum allowable hours of operation (8760 hrs) and divide by 2000 pound per ton. Therefore, if compliance is shown with the allowable short-term emissions limitation, compliance shall be shown with the annual emissions limitation.

e. Emissions Limitations:

Carbon monoxide emissions (CO) shall not exceed 0.60 pound per MMBtu.



Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with U.S. EPA Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

f. Emissions Limitations:

Carbon monoxide emissions (CO) shall not exceed 40.94 tons per year.

Applicable Compliance Method:

Compliance with the annual emissions limitation for PE was based on multiplication of the short term allowable PE emissions limitation (0.60 lb/MMBtu) by the maximum heat input (15.58 MMBtu/hr) by the maximum allowable hours of operation (8760 hrs) and divide by 2000 pound per ton. Therefore, if compliance is shown with the allowable short-term emissions limitation, compliance shall be shown with the annual emissions limitation.

g. Emissions Limitations:

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

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with U.S. EPA Method 22 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) None.



**2. P001, Woodworking Operation**

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

Woodworking shop including saws, sanders, shapers, molders, and dovetailers controlled by a 42,437 cfmbaghouse

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 operation(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 are identified below. 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 #: 02-22282)	The particulate emissions (PE) emissions from this unit shall not exceed 0.01 gr/dscf, 3.64 pounds per hour and 15.90 tons per year.  See b)(2)a.
b.	OAC rule 3745-17-08(B)	See b)(2)b.
c.	OAC rule 3745-17-07(B)	See b)(2)c.
d.	OAC rule 3745-17-11	The emissions limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAc rule 3745-17-07(A)	The emissions limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



(2) Additional Terms and Conditions

- a. There shall be no visible particulate emissions from the fabric filter/baghouse stack.
- b. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08 (it is located in Holmes County). Therefore, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- c. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- d. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

- (1) The permittee shall assure that the pressure drop across the fabric filter/baghouse is maintained within manufacturer's specified range while the emissions unit is in operation.
- (2) The baghouse collector shall be operated in such a manner as to provide sufficient volumetric flow rate to eliminate visible particulate emissions at the point(s) of capture to the extent possible using all good engineering practices.

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 1.0 to 8.0 inches of water.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;



- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA, Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;



- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.
- (4) If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item d above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
- e) Reporting Requirements
- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA, Northeast District Office 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

The permittee shall submit with the PER, reports identifying the following:

- a. identify all days during which any visible particulate emissions were observed from the fabric filter/baghouse serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions;
- b. identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions;
- c. each period of time (start time and date, and end time and date) when the pressure drop across the fabric filter/baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
- d. 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 fabric filter/baghouse;
- e. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- f. 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;
- g. 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.
- h. all periods of time that the telescoping fabric tubes or other drop height reduction tool were not used while the sawdust load out was in operation; and
- i. all periods of time that the wood waste silo vent was not vented to the closed loop system

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitations:

0.01 grains per dry standard cubic foot (dscf) and 3.64 pounds per hour of particulate emissions.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with OAC 3745-17-03 (B)(10), U.S. EPA Method 5 of 40 CFR, Part 60, Appendix A.

- b. Emissions Limitations:

15.90 tons per year of particulate emissions.

Applicable Compliance Method:

Compliance with the annual emissions limitation for PE was based on multiplication of the short term allowable PE emissions limitation (3.64 lb/hr) by the annual hours of operation (8760 hrs) and divided by 2000 pound per ton. Therefore, if compliance is shown with the allowable short-term emissions limitation, compliance shall be shown with the annual emissions limitation.

- c. Emissions Limitations:

There shall be no particulate emissions from the fabric filter/baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with U.S. EPA Method 22 of 40 CFR, Part 60, Appendix A.



**Final Permit-to-Install and Operate**  
Schrock's Woodcrafts Inc Plant 2  
**Permit Number:** P0112864  
**Facility ID:** 0238000150  
**Effective Date:** 1/6/2014

g) Miscellaneous Requirements

(1) None.



**3. P002, Wood Waste Storage Silo**

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

Wood waste storage silo

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 operation(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 are identified below. 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 #: 02-22282)	The particulate emissions (PE) emissions from this unit shall not exceed, 0.37 pounds per hour and 1.62 tons per year.  See b)(2)a.
b.	OAC rule 3745-17-08(B)	See b)(2)b.
c.	OAC rule 3745-17-07(B)	See b)(2)c.

(2) Additional Terms and Conditions

a. Fugitive particulate emissions (PE) shall not exceed 20% opacity, as a 3-minute average during load out activities.

b. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08 (it is located in Holmes County). Therefore, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).



- c. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

c) Operational Restrictions

- (1) During any unloading of wood waste into trucks from the wood waste silo, every attempt shall be made to reduce or control fugitive dust emissions by minimizing the drop height to the truck, utilizing a truck with high side boards, or placing a covering over the discharge chute during the unloading process. The collection efficiency shall be considered adequate if there are no visible particulate emissions of fugitive dust from the unloading area during wood waste storage silo load-out in excess of 20% opacity, as a 3-minute average.
- (2) The wood waste silo vent shall be a closed loop system with no vent to the atmosphere.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.
- (2) If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item d above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.



e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA, Northeast District Office 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

The permittee shall submit with the PER, reports identifying the following:

- a. identify all days during which any visible particulate emissions were observed from the fabric filter/baghouse serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions;
- b. identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions;
- c. 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 closed loop system;
- d. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
- e. all periods of time that the telescoping fabric tubes or other drop height reduction tool were not used while the sawdust load out was in operation; and
- f. all periods of time that the wood waste silo vent was not vented to the closed loop system

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations:

0.37 pounds per hour of particulate emissions.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with OAC 3745-17-03 (B)(10), U.S. EPA Method 5 of 40 CFR, Part 60, Appendix A.



b. Emissions Limitations:

1.62 tons per year of particulate emissions.

Applicable Compliance Method:

Compliance with the annual emissions limitation for PE was based on multiplication of the short term allowable PE emissions limitation (0.37 lb/hr) by the annual hours of operation (8760 hrs) and divided by 2000 pound per ton. Therefore, if compliance is shown with the allowable short-term emissions limitation, compliance shall be shown with the annual emissions limitation.

c. Emissions Limitations:

Fugitive particulate emissions (PE) shall not exceed 20% opacity, as a 3-minute average during load out activities.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with U.S. EPA Method 9 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.



**4. R010, Manual Spray Coating Booth**

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

off line manual spray booth to finish wood furniture

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. d)(7), d)(8), d)(9), d)(10) and e)(4).

(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 operation(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 are identified below. 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#: 02-22054)	See b)(2)a, b)(2)b, c)(1) and c)(2).
b.	OAC rule 3745-31-05(D)	See b)(2)c, b)(2)d and c)(3).
c.	ORC 3704.03(F)	See d)(7), d)(8), d)(9), and d)(10).

(2) Additional Terms and Conditions

a. The volatile organic compound (VOC) emissions from all associated coatings applied shall not exceed 18.30 pounds per hour. That limit is based upon a maximum application rate of 3.00 gallons per hour.

b. The VOC content of each associated coatings applied shall not exceed 6.10 pounds per gallon, as applied.

c. The hazardous air pollutant (HAP) emissions from all associated coatings and cleanup materials from emission units, R004-R010, combined, shall not exceed 9.50 tons of any single HAP per rolling 12-month period, or 24.50 total tons of combined HAPs per rolling 12-month period.



- d. The VOC emissions from all associated coatings and cleanup materials applied shall not exceed 80.29 tons annually from this emissions unit (R010), and shall not exceed 97.5 tons per rolling 12-month, for emission unit, R004-R010, combined.

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.
- (2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) The maximum emissions from all associated coatings and cleanup materials usage from emission units, R004-R010, combined shall not exceed 97.50 tons of VOC, 9.50 tons of any single HAP, or 24.50 tons of combined HAPs, per rolling 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 Northeast District Office of the Ohio EPA upon request.
- (2) 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 Northeast District Office of the Ohio EPA upon request.
- (3) 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.
- (4) 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 Northeast District Office of the Ohio EPA upon request.

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 Northeast District Office of the Ohio EPA upon request.

- (5) The permittee shall collect and record the following information each day for this emissions unit:
  - a. the company identification for each coating and cleanup material employed;
  - b. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;
  - c. the number of gallons of each coating and cleanup material employed minus the number of gallons of each coating and cleanup material recovered for disposal;
  
- (6) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name or identification number of each coating and cleanup material employed;
  - b. the volume, in gallons, of each coating and cleanup material employed, i.e., the summation of daily coating and cleanup material usage, recorded in section d) of this permit, for the month;
  - c. each individual HAP content for each coating and cleanup material employed, in pounds per gallon;
  - d. the total emissions of each individual HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "c";
  - e. the total combined HAP content for each coating and cleanup material employed, in pounds per gallon;
  - f. the total emissions of total combined HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "e";
  - g. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;
  - h. the total VOC emissions from all coatings and cleanup material employed, i.e., the summation of the products of "b" times "g"; and
  - i. the rolling, 12-month summation of total VOC, total HAPs, individual HAPs emissions, in tons.



(7) The FEPTIO application for the emission units, R004-R010, were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit 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, (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: n-butyl alcohol

TLV (mg/m<sup>3</sup>): 60.60

Maximum Hourly Emission Rate (lbs/hr): 22.70



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 451.70

MAGLC (ug/m3): 14,428

The permittee, has demonstrated that emissions of n-butyl alcohol, from emission units R004-R010, 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).

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions unit, 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 FEPTIO 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.

- (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.
- (10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall submit the following quarterly deviation (excursion) reports identifying the following:
- a. each day during which the average VOC emissions from the associated coating(s) employed exceeded the established pound per hour limitation, and the actual average VOC emissions of each such day;
  - b. each day during which the VOC content of any associated coating(s) employed exceeded the established pounds per gallon limitation, and the actual VOC content of each such coating employed;
  - c. all exceedances of the established rolling 12-month VOC emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
  - d. all exceedances of the established rolling 12-month single HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
  - e. all exceedances of the established rolling 12-month total combined HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit.



The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

- (3) The permittee shall include in the annual PER the following:
  - a. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation
- (4) The permittee shall also submit annual reports to the Ohio EPA, Northeast District Office, documenting any changes made to a parameter or value used in the dispersion model (including the air toxic compounds emitted and the emission rate), that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.
- (5) The permittee shall submit annual reports that summarize the actual annual emissions of VOC, from this emissions unit and the maximum single HAP emissions and total combined HAP emissions from emission units, R004-R010, combined. The reports shall include emissions calculations and shall be submitted by January 31, of each year, and shall cover the previous calendar year.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Individual HAP emissions shall not exceed 9.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.

- b. Emission Limitation:

Total HAP emissions shall not exceed 24.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.



c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 20.97 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

d. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 80.29 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

e. Emission Limitation:

VOC emissions from emissions units, R004-R010, combined, shall not exceed 97.50 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

f. Emissions Limitation:

6.10 pounds of VOC per gallon of coating, excluding water and exempt solvents,

Applicable Compliance Method:

Compliance shall be determined by the daily values calculated in section d) of this permit based on the record keeping specified in section d) of this permit.

(2) USEPA Method 24 or formulation data shall be used to determine the VOC content of each coating and cleanup material.

(3) Formulation data shall be used to determine the contents of each individual HAP and total combined HAP.

g) Miscellaneous Requirements

(1) None.



**5. Emissions Unit Group – Manual Spray Coating Booths Group 1: R004, R005, and R009.**

EU ID	Operations, Property and/or Equipment Description
R004	off line manual top coat spray booth to finish wood furniture. Parts air dried and manually moved.
R005	off line manual stain spray booth to finish wood furniture. Parts air dried and manually moved.
R009	stain spray booth 1, one manual spray gun/pump and manual wiping, associated drying oven and conveyor system to finish wood furniture

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. d)(7), d)(8), d)(9), d)(10) and e)(4).

(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 operation(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 are identified below. 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#: 02-22054)	See b)(2)a, b)(2)b, c)(1) and c)(2).
b.	OAC rule 3745-31-05(D)	See b)(2)c, b)(2)d and c)(3).
c.	ORC 3704.03(F)	See d)(7), d)(8), d)(9), and d)(10).

(2) Additional Terms and Conditions

a. The volatile organic compound (VOC) emissions from all associated coatings applied shall not exceed 20.97 pounds per hour. That limit is based upon a maximum application rate of 3.00 gallons per hour.

b. The VOC content of each associated coatings applied shall not exceed 6.99 pounds per gallon, as applied.



- c. The hazardous air pollutant (HAP) emissions from all associated coatings and cleanup materials from emission units, R004-R010, combined, shall not exceed 9.50 tons of any single HAP per rolling 12-month period, or 24.50 total tons of combined HAPs per rolling 12-month period.
- d. The VOC emissions from all associated coatings and cleanup materials applied shall not exceed 91.99 tons annually from these emission units (R004, R005, and R009)), and shall not exceed 97.5 tons per rolling 12-month, for emission unit, R004-R010, combined.

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.
- (2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) The maximum emissions from all associated coatings and cleanup materials usage from emission units, R004-R010, combined shall not exceed 97.50 tons of VOC, 9.50 tons of any single HAP, or 24.50 tons of combined HAPs, per rolling 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 Northeast District Office of the Ohio EPA upon request.
- (2) 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 Northeast District Office of the Ohio EPA upon request.
- (3) 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.
- (4) 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 Northeast District Office of the Ohio EPA upon request.

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 Northeast District Office of the Ohio EPA upon request.

- (5) The permittee shall collect and record the following information each day for this emissions unit:
  - a. the company identification for each coating and cleanup material employed;
  - b. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;
  - c. the number of gallons of each coating and cleanup material employed minus the number of gallons of each coating and cleanup material recovered for disposal;
- (6) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name or identification number of each coating and cleanup material employed;
  - b. the volume, in gallons, of each coating and cleanup material employed, i.e., the summation of daily coating and cleanup material usage, recorded in section d) of this permit, for the month;
  - c. each individual HAP content for each coating and cleanup material employed, in pounds per gallon;
  - d. the total emissions of each individual HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "c";
  - e. the total combined HAP content for each coating and cleanup material employed, in pounds per gallon;
  - f. the total emissions of total combined HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "e";
  - g. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;



- h. the total VOC emissions from all coatings and cleanup material employed, i.e., the summation of the products of “b” times “g”; and
  - i. the rolling, 12-month summation of total VOC, total HAPs, individual HAPs emissions, in tons.
- (7) The FEPTIO application for the emission units, R004-R010, were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The “Toxic Air Contaminant Statute”, ORC 3704.03(F), was applied to this emissions unit 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, (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: n-butyl alcohol

TLV (mg/m<sup>3</sup>): 60.60

Maximum Hourly Emission Rate (lbs/hr): 22.70

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 451.70

MAGLC (ug/m<sup>3</sup>): 14,428

The permittee, has demonstrated that emissions of n-butyl alcohol, from emission units R004-R010, 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).

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions unit, 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 FEPTIO 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.

- (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.
- (10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall submit the following quarterly deviation (excursion) reports identifying the following:
    - a. each day during which the average VOC emissions from the associated coating(s) employed exceeded the established pound per hour limitation, and the actual average VOC emissions of each such day;
    - b. each day during which the VOC content of any associated coating(s) employed exceeded the established pounds per gallon limitation, and the actual VOC content of each such coating employed;
    - c. all exceedances of the established rolling 12-month VOC emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
    - d. all exceedances of the established rolling 12-month single HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
    - e. all exceedances of the established rolling 12-month total combined HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
  - (3) The permittee shall include in the annual PER the following:
    - a. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation
  - (4) The permittee shall also submit annual reports to the Ohio EPA, Northeast District Office, documenting any changes made to a parameter or value used in the dispersion model (including the air toxic compounds emitted and the emission rate), that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.
  - (5) The permittee shall submit annual reports that summarize the actual annual emissions of VOC, from this emissions unit and the maximum single HAP emissions and total combined HAP emissions from emission units, R004-R010, combined. The reports shall include emissions calculations and shall be submitted by January 31, of each year, and shall cover the previous calendar year.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

Individual HAP emissions shall not exceed 9.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.
    - b. Emission Limitation:

Total HAP emissions shall not exceed 24.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 20.97 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

d. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 91.99 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

e. Emission Limitation:

VOC emissions from emissions units, R004-R010, combined, shall not exceed 97.50 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

f. Emissions Limitation:

6.99 pounds of VOC per gallon of coating, excluding water and exempt solvents,

Applicable Compliance Method:

Compliance shall be determined by the daily values calculated in section d) of this permit based on the record keeping specified in section d) of this permit.

(2) USEPA Method 24 or formulation data shall be used to determine the VOC content of each coating and cleanup material.

(3) Formulation data shall be used to determine the contents of each individual HAP and total combined HAP.

g) Miscellaneous Requirements

(1) None.



**6. Emissions Unit Group -Manual Spray Coating Booths Group 2: R006, R007, and R008.**

EU ID	Operations, Property and/or Equipment Description
R006	top coat spray booth 2, one manual spray gun/pump, associated drying oven and conveyor system to finish wood furniture
R007	top coat spray booth 1, one manual spray gun/pump, associated drying oven and conveyor system to finish wood furniture
R008	sealer coat spray booth, one manual spray gun/pump, associated drying oven and conveyor system to finish wood furniture

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. d)(7), d)(8), d)(9), d)(10) and e)(4).

(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 operation(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 are identified below. 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#: 02-22054)	See b)(2)a, b)(2)b, c)(1) and c)(2).
b.	OAC rule 3745-31-05(D)	See b)(2)c, b)(2)d and c)(3).
c.	ORC 3704.03(F)	See d)(7), d)(8), d)(9), and d)(10).

(2) Additional Terms and Conditions

a. The volatile organic compound (VOC) emissions from all associated coatings applied shall not exceed 18.30 pounds per hour. That limit is based upon a maximum application rate of 3.00 gallons per hour.

b. The VOC content of each associated coatings applied shall not exceed 6.10 pounds per gallon, as applied.



- c. The hazardous air pollutant (HAP) emissions from all associated coatings and cleanup materials from emission units, R004-R010, combined, shall not exceed 9.50 tons of any single HAP per rolling 12-month period, or 24.50 total tons of combined HAPs per rolling 12-month period.
- d. The VOC emissions from all associated coatings and cleanup materials applied shall not exceed 91.99 tons annually from these emission units (R006-R008), and shall not exceed 97.5 tons per rolling 12-month, for emission unit, R004-R010, combined.

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.
- (2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) The maximum emissions from all associated coatings and cleanup materials usage from emission units, R004-R010, combined shall not exceed 97.50 tons of VOC, 9.50 tons of any single HAP, or 24.50 tons of combined HAPs, per rolling 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 Northeast District Office of the Ohio EPA upon request.
- (2) 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 Northeast District Office of the Ohio EPA upon request.
- (3) 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.
- (4) 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 Northeast District Office of the Ohio EPA upon request.

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 Northeast District Office of the Ohio EPA upon request.

- (5) The permittee shall collect and record the following information each day for this emissions unit:
  - a. the company identification for each coating and cleanup material employed;
  - b. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;
  - c. the number of gallons of each coating and cleanup material employed minus the number of gallons of each coating and cleanup material recovered for disposal;
- (6) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name or identification number of each coating and cleanup material employed;
  - b. the volume, in gallons, of each coating and cleanup material employed, i.e., the summation of daily coating and cleanup material usage, recorded in section d) of this permit, for the month;
  - c. each individual HAP content for each coating and cleanup material employed, in pounds per gallon;
  - d. the total emissions of each individual HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "c";
  - e. the total combined HAP content for each coating and cleanup material employed, in pounds per gallon;
  - f. the total emissions of total combined HAP from all coatings and cleanup materials employed, i.e., the summation of the products of "b" times "e";



- g. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;
  - h. the total VOC emissions from all coatings and cleanup material employed, i.e., the summation of the products of "b" times "g"; and
  - i. the rolling, 12-month summation of total VOC, total HAPs, individual HAPs emissions, in tons.
- (7) The FEPTIO application for the emission units, R004-R010, were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit 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, (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: n-butyl alcohol

TLV (mg/m<sup>3</sup>): 60.60

Maximum Hourly Emission Rate (lbs/hr): 22.70

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 451.70

MAGLC (ug/m<sup>3</sup>): 14,428

The permittee, has demonstrated that emissions of n-butyl alcohol, from emission units R004-R010, 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).

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions unit, 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 FEPTIO 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.



- (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.
- (10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall submit the following quarterly deviation (excursion) reports identifying the following:
- a. each day during which the average VOC emissions from the associated coating(s) employed exceeded the established pound per hour limitation, and the actual average VOC emissions of each such day;
  - b. each day during which the VOC content of any associated coating(s) employed exceeded the established pounds per gallon limitation, and the actual VOC content of each such coating employed;
  - c. all exceedances of the established rolling 12-month VOC emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
  - d. all exceedances of the established rolling 12-month single HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;



- e. all exceedances of the established rolling 12-month total combined HAP emissions limitation or this emissions unit and emission units, R004-R010, combined, and the actual VOC emissions during each such period;
  - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
  - (3) The permittee shall include in the annual PER the following:
    - a. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation
  - (4) The permittee shall also submit annual reports to the Ohio EPA, Northeast District Office, documenting any changes made to a parameter or value used in the dispersion model (including the air toxic compounds emitted and the emission rate), that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.
  - (5) The permittee shall submit annual reports that summarize the actual annual emissions of VOC, from this emissions unit and the maximum single HAP emissions and total combined HAP emissions from emission units, R004-R010, combined. The reports shall include emissions calculations and shall be submitted by January 31, of each year, and shall cover the previous calendar year.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

Individual HAP emissions shall not exceed 9.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.
    - b. Emission Limitation:

Total HAP emissions shall not exceed 24.50 tons per year, based upon a rolling, 12-month summation of facility wide HAP emissions.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section d) of this permit.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 18.30 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

d. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 91.99 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

e. Emission Limitation:

VOC emissions from emissions units, R004-R010, combined, shall not exceed 97.50 ton per year, based upon a rolling, 12-month summation of VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified section d) of this permit.

f. Emissions Limitation:

6.10 pounds of VOC per gallon of coating, excluding water and exempt solvents,

Applicable Compliance Method:

Compliance shall be determined by the daily values calculated in section d) of this permit based on the record keeping specified in section d) of this permit.

(2) USEPA Method 24 or formulation data shall be used to determine the VOC content of each coating and cleanup material.

(3) Formulation data shall be used to determine the contents of each individual HAP and total combined HAP.

g) Miscellaneous Requirements

(1) None.