



State of Ohio Environmental Protection Agency

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P.O. Box 1049
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CERTIFIED MAIL

**RE: FINAL PERMIT TO INSTALL
HOLMES COUNTY
Application No: 02-22810
Fac ID: 0238000225**

DATE: 11/15/2007

Beachy Woodworking, LTD
Edward Beachy
14290 County Rd. 75
Brinkhaven, OH 43006

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

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

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

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

Sincerely,

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

CC: USEPA

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 11/15/2007
Effective Date: 11/15/2007**

FINAL PERMIT TO INSTALL 02-22810

Application Number: 02-22810
Facility ID: 0238000225
Permit Fee: **\$1800**
Name of Facility: Beachy Woodworking, LTD
Person to Contact: Edward Beachy
Address: 14290 County Rd. 75
Brinkhaven, OH 43006

Location of proposed air contaminant source(s) [emissions unit(s)]:
**14290 County Rd. 75
Brinkhaven, Ohio**

Description of proposed emissions unit(s):
Woodworking equipment, spray booth, diesel engine.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

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

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

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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

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

14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
NOx	14.95
CO	8.11
SOx	4.17
PE/PM-10	8.71
OC	28.57

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P001) - Wood shop including shappers, planer, saws, sanders, controlled by a large diameter cyclone and Aget 14,760 cfm return-air baghouse, and the associated woodwaste load-out.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See A.2.a, A.2.b, A.2.e, B.1, B.2, B.3 and B.4 below.
OAC rule 3745-17-08(B)	None (see A.2.c).
OAC rule 3745-17-07(B)	None (see A.2.d).
OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a Particulate emissions (PE) shall not exceed 0.01 grain per dscf of exhaust gas, 1.27 pounds per hour and 5.56 tons per year from the dust collector exhaust.
- 2.b There shall be no visible emissions from the dust collector exhaust.
- 2.c 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.
- 2.d 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).
- 2.e Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average during load-out.

B. Operational Restrictions

1. The pressure drop across the dust collector shall be maintained within the manufacturer's recommended range while the emissions unit is in operation, or within the pressure drop range established during the most recent compliance inspection or stack test that determined the emissions unit was in compliance.
2. The dust collector shall be operated with a sufficient volumetric flow rate to eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.
3. During any unloading of wood waste from the cyclone hopper into trailers, every attempt shall be made to reduce or control fugitive dust emissions by utilizing a three sided enclosure, minimizing the drop height to the trailer, utilizing a trailer with high side boards, placing a covering over the discharge chute during the unloading process, or other fugitive dust reduction technique. The collection efficiency shall be considered adequate if there are no visible particulate emissions of fugitive dust from the during wood waste storage silo load-out in excess of 20% opacity, as a 3-minute average.
4. Fugitive particulate emissions shall be eliminated during unloading of wood waste from the baghouse into hoppers.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the dust collector while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the dust collector on a weekly basis.
2. When the dust collector is vented outside the building, the permittee shall perform weekly checks for any visible particulate emissions from the exhaust of the dust collector. The presence or absence of any visible emissions from the exhausts of the dust collectors shall be noted in an operations log. If any visible emissions are observed, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

NOTE: The exhaust from the dust collector for this emissions unit are currently vented back into the building. This is the normal operating mode for this emissions unit.

3. The permittee shall record in an operations log any time the three-side enclosure for the unloading area was not in use when sawdust load out is in operation.
4. The permittee shall maintain copies of these records for a period of at least five years. Those records should be made available for Ohio EPA or their representatives to review during normal working hours.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. all periods of time during which the pressure drop across the dust collector did not comply with the allowable range specified above;
 - b. all periods of time that the three-sided enclosure for the load-out area were not used during while the sawdust load-out was in operation

The quarterly deviations reports shall be submitted in accordance with the General Terms and Conditions. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

2. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the exhaust of the dust collector serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations:
0.01 gr/dscf and 1.27 pounds per hour of PE

Applicable Compliance Methods:
If required compliance with the PE limitations above shall be determined according Methods 1 - 5, 40 CFR 60, Appendix A.
 - b. Emission Limitation:
5.56 tons per year of PE

Applicable Compliance Methods:

Compliance the annual allowable PE limitation may be determined by the following equation:

$$(0.055 \text{ gr/dscf}) \times (14,760 \text{ cfm}) \times (60 \text{ min/hr}) \times (8760 \text{ hr/yr}) \times (\text{lb}/7000 \text{ gr}) \times (\text{ton}/2000 \text{ lb}) \times (1-(0.99))$$

Where:

0.055 gr/dscf is the emission factor from AP-42, table 10.4-1 version 4/78; and

14,760 cfm is the dust collector flow rate;

99% is the manufacturer's guaranteed control efficiency.

c. Emission Limitation:

There shall be no visible emissions from the dust collector exhaust.

Applicable Compliance Methods:

Compliance with the no visible emission limit for the exhausts from the dust collector shall be determined using Test Method 22-like visible emission observations. (Although Test Method 22 applies to fugitive emissions units, the visible/no visible emissions observation technique of Test Method 22 can be applied to ducted emissions, i.e., Test Method 22-like visible emission observations.)

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average during load-out.

Applicable Compliance Method:

Compliance with the visible fugitive emission limitation shall be determine by OAC rule 3745-17-03(B)(3), in accordance with Method 9, as set forth in 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

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

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

Operations, Property, and/or Equipment -(P002) - 325 HP John Deere PowerTech stationary diesel engine

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>0.72 lb/hr and 3.15 TPY of particulate emissions (PE)/PM less than 10 microns in diameter (PM-10).</p> <p>0.95 lb/hr and 4.17 TPY of sulfur dioxide (SO₂). See A.2.a and B.1 below.</p> <p>3.41 lbs/hr and 14.95 TPY of nitrogen dioxides (NO_x).</p> <p>0.82 lb/hr and 3.58 TPY of organic compounds (OC).</p> <p>1.85 lb/hr and 8.11 TPY of carbon monoxide (CO).</p> <p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(5)(a).</p>
OAC rule 3745-17-11(B)(5)(a)	0.310 lb/mmBtu of particulate emissions.
OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-18-06(G)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a** In accordance with OAC rule 3745-31-05(A)(3), best available technology for this emissions unit includes the emission limitations and fuel sulfur content restriction.

B. Operational Restrictions

1. The permittee shall use only diesel fuel/number 2 fuel oil with a maximum sulfur content of 0.5 percent, by weight, for combustion in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain documentation of the sulfur content of all fuels received.
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 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 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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day during which a fuel other than diesel fuel with a maximum sulfur content of 0.5 percent by weight was

burned in this emissions unit and any corrective action(s) that were taken. Each report shall be submitted to the Ohio EPA Northeast District Office within 30 days of the deviation.

2. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. describe any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

3. The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

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

- a. Emission Limitation:
0.72 lb/hr of PM/PM-10

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by multiplying 0.00033 lb/hp-hr, emission factor from California Air Resources Board Tier 2 Certification for this model year and engine family, by 325 hp, the power output rating of this unit.

If required, compliance shall be demonstrated based upon an emission test performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

- b. Emission Limitation:
3.15 TPY of PM/PM-10

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.72 lb/hr) by the maximum allowable hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- c. Emission Limitation:
0.95 lb/hr of SO₂

Applicable Compliance Method:

Compliance with the hourly emission limitations above shall be determined by the following equation:

$$(0.326 \text{ lb fuel/hp-hr}) (325 \text{ hp}) (S) (64 \text{ SO}_2/32 \text{ S}) (0.9 \text{ conversion})$$

where:

0.326 lb fuel/hp-hr is the manufacturer supplied fuel consumption;

325 hp is the maximum rated horsepower;

S is the percent sulfur in the fuel, 0.5%

64 is the molecular mass of sulfur dioxide;

32 is the molecular mass of sulfur; and

0.9 is 90% conversion of sulfur to sulfur dioxide.

- d. Emission Limitation:
4.17 TPY of SO₂

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable SO₂ emission limitation (0.95 lb/hr) by the maximum allowable hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- e. Emission Limitation:
3.41 lbs/hr of NO_x

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by multiplying 0.0105 lb/hp-hr, emission factor from California Air Resources Board Tier 2 Certification for this model year and engine family, by 325 hp, the power output rating of this unit.

- f. Emission Limitation:
14.95 TPY of NO_x

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (3.41 lbs/hr) by the maximum allowable hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- g. Emission Limitation:
0.82 lb/hr of OC

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by multiplying 0.00251 lb/hp-hr, the emission factor from AP-42, Table 3.3-1 (10/96), by 325 hp, the power output rating of this unit.

- h. Emission Limitation:
3.58 TPY of OC

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable OC emission limitation (0.82 lb/hr) by the maximum allowable hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- i. Emission Limitation:
1.85 lb/hr of CO

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by multiplying 0.0057 lb/hp-hr, the emission factor from California Air Resources Board Tier 2 Certification for this model year and engine family, by 325 hp, the power output rating of this unit.

- j. Emission Limitation:
8.11 TPY of CO

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable OC emission limitation (1.85 lb/hr) by the maximum allowable hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- k. Emission Limitation:
Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average, except during acceleration.

Applicable Compliance Method:

If required, compliance with the visible particulate emission limitation shall be demonstrated based upon the visible emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

- I. Emission Limitation:
0.310 lb/mmBtu of particulate emissions

Applicable Compliance Method:

Compliance with the short term emission limitation above may be determined by the following equation:

$$(0.0022 \text{ lb/hp-hr}) / (\text{hp-hr}/7000 \text{ Btu}) * (10^6 \text{ Btu/mmBtu})$$

where:

0.0022 lb/hp-hr, the emission factor from AP-42, Table 3.3-1 (10/96).

If required, compliance shall be demonstrated based upon an emission test performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (R001) - Manual wood product sealer/topcoat operation including one booth with dry filters and one air-assisted, airless spray gun/pump combination. Parts air dried and manually moved.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	See sections A.2.b, A.2.c, A.2.d and B.1 below. The requirements of this rule also include compliance with requirements of OAC rule 3745-21-07(G)(2).
OAC rule 3745-21-07(G)(2)	See section A.2.a below.

2. Additional Terms and Conditions

- 2.a On any day during which any photochemically reactive material [as defined in OAC 3745-21-01(C)(5)] is employed, the organic compound (OC) emissions from all the coatings and photochemically reactive cleanup materials shall not exceed 8 pounds per hour and 40 pound per day. [OC emissions from any cleanup material that is not a photochemically reactive material shall not be counted towards the 8 lbs/hr and 40 lbs/day limitations.]
- 2.b On any day during which no photochemically reactive materials [as defined in OAC 3745-21-01(C)(5)] are employed, the volatile organic compound (VOC) emissions from all the coatings shall not exceed 18.35 pounds per hour. [This limit is based upon the maximum application rate of 3.3 gallon per hour.]
- 2.c The VOC content of each coating shall not exceed 5.56 pounds per gallon, as applied.
- 2.d The VOC emissions from all coatings and cleanup materials from this emissions unit and from R001 and R002 combined shall not exceed 21.41 tons per year.

B. Operational Restrictions

1. All exhaust from the spray booth shall pass through the dry filters whenever this emissions unit is in operation.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain daily records that document all time periods when the dry filters were not in service when the emissions unit was in operation.
2. The permittee shall collect and record the following information for each day during which any photochemically reactive material is employed in this emissions unit:
 - a. The company identification for each coating and photochemically reactive cleanup material employed;
 - b. The number of gallons of each coating and photochemically reactive cleanup material employed minus the number of gallons of each coating and photochemically reactive cleanup material recovered for disposal;
 - c. The OC content of each coating and photochemically reactive cleanup material, in pounds OC per gallon;
 - d. The total emissions rate for all the coatings and photochemically reactive cleanup materials, in pounds OC per day;
 - e. The total number of hours the emissions unit was in operation; and
 - f. The average hourly OC emission rate for all the coatings and photochemically reactive cleanup materials, i.e., (d)/(e), in pounds per hour (average);
 - g. The VOC content of each coating and photochemically reactive cleanup material, in pounds VOC per gallon; and
 - h. The total emissions rate for all coatings and photochemically reactive cleanup materials, in pounds VOC per day.
3. The permittee shall collect and record the following information for each day during which no photochemically reactive materials are employed in this emissions unit:
 - a. The company identification for each coating or cleanup material employed;

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).]

- b. Documentation on whether or not each material employed (coating and cleanup) was a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5);
 - c. The volatile organic compound (VOC) content of each coating, in lbs/gallon, as applied;
 - d. The number of gallons of each coating employed minus the number of gallons of each coating recovered for disposal;
 - e. The total VOC emissions from all the coatings employed, in lbs/day, i.e., sum of (c) times (d);
 - f. The total number of hours the emissions unit was in operation; and
 - g. The average hourly VOC emission rate for all the coatings, i.e., (e)/(f), in lbs/hr.
4. The permittee shall collect and record the following information for each day for emissions unit R002 to determine the facility-wide annual emissions:
 - a. The company identification for each coating or cleanup material employed;
 - b. The number of gallons of each coating employed minus the number of gallons of each coating recovered for disposal; and
 - c. The volatile organic compound (VOC) content of each coating, in lbs/gallon, as applied.
 5. The permittee shall collect and record the following information for each month for the emissions unit:
 - a. The number of gallons of each non-photochemically reactive cleanup material employed minus the number of gallons of cleanup material recovered for disposal;
 - b. The volatile organic compound (VOC) content of each non-photochemically cleanup material, in lbs/gallon; and
 - c. The total VOC emissions from all non-photochemically reactive cleanup materials employed, in lbs/month, i.e., sum of (b) times (a).
 6. The permittee shall calculate and record the total VOC emissions from all the coatings and cleanup materials employed, in tons per calendar year; [i.e., (the summation of the daily VOC emissions, from section C.2.h, for the calendar year + the summation of the daily VOC emissions, from section C.3.e, for the calendar year + the monthly non-photochemically reactive cleanup material VOC emission from section C.5.c) divided by 2000 lbs/ton].

The permittee shall also calculate and record the total VOC emissions from all the coating and cleanup materials employed from R001 and R002 combined, in tons per calendar year.

7. The permit to install for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene

TLV (mg/m³): 188.4

Maximum Hourly Emission Rate (lbs/hr): 1.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1043

MAGLC (ug/m³): 4,485

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 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 ORC 3704.03(F), the statute, has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install 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":
 - 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 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 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 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.

D. Reporting Requirements

1. The permittee shall notify the Director in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (Ohio EPA, Northeast District Office) within 30 days after the event occurs.
2. The permittee submit quarterly deviation (excursion) reports that identify:
 - a. For the days during which any photochemically reactive material was employed, each day during which the OC emissions from the coatings and photochemically reactive cleanup materials exceeded 8 pounds per hour and/or 40 pounds per day, and the actual OC emissions for each such day;
 - b. For the days during which no photochemically reactive materials were employed, each day during which the average VOC emissions from the coatings exceeded

the pounds per hour limitation, and the actual average VOC emissions for each such day; and

- c. Each day during which the VOC content of any coating exceeded the pounds per gallon limitation, and the actual VOC content of each such coating employed.

The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

- 3. The permittee shall also submit annual reports that summarize the actual annual emissions of VOC from this emissions unit and from R001 and R002 combined. The reports shall include the emissions calculations and shall be submitted by January 31 of each year, and shall cover the previous calendar year.
- 4. The permittee shall submit annual reports that document any changes made to a parameter or value used in the dispersion model used to demonstrate compliance with 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. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

E. Testing Requirements

- 1. Compliance with the allowable emission limitations in Section A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:
8 pounds per hour of OC emissions for each day during which any photochemically reactive material is employed

Applicable Compliance Method:
Compliance with the hourly allowable OC emission limitation shall be determined based upon the record keeping requirements specified in Section C.2 of this permit.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

- b. Emissions Limitation:
40 pounds per day of OC emissions for each day during which any photochemically reactive material is employed

Applicable Compliance Method:
Compliance with the daily allowable OC emission limitation shall be determined based upon the record keeping requirements specified in Section C.2 of this permit.

- c. Emissions Limitation:
18.35 pounds VOC emissions per hour for each day during which no photochemically reactive materials are employed

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation shall be determined based upon the record keeping requirements specified in Section C.3 of this permit.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

- d. Emissions Limitation:
21.41 tons per year of VOC emissions from all coatings and cleanup materials from this emissions unit and from R001 and R002 combined.

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation above shall be based upon the record keeping requirements specified in Sections C.2, C.3, C.4, C.5 and C.6 of this permit.

- e. Emissions Limitation:
5.56 pounds of VOC per gallon coating, as applied.

Applicable Compliance Method:

Any determination of VOC content, solids contents, or density of coating material or cleanup material shall be based on the coating materials as employed (as applied), including the addition of any thinner or viscosity reducer to the coatings. In accordance with OAC rule 3745-21-04(B)(5), the permittee shall determine the composition of the coatings or cleanup material by a certified environmental data sheet supplied by the manufacturer of the coating materials, or from data determined by an analysis of each coating, as applied, by Reference Method 24 or Method 24A. If, pursuant to section 11.4 of Method 24, 40 CFR Part 60, Appendix A (revised as of July 1, 2001), an owner or operator determines that Method 24 or Method 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 and/or Method 24A.

F. Miscellaneous Requirements

1. R002 is a manual wood furniture staining operation exempt from permitting according to OAC rule 3745-31-03(A)(1)(kk). This exemption requires that the total VOC emissions from the facility does not exceed 25 tons per year. In order to ensure that emissions unit

Beachy Woodworking, LTD

PTI Application: 02-22810

Issued: 11/15/2007

Facility ID: 0238000225

Emissions Unit ID: R001

R002 remains exempt from permitting, the annual VOC emission limitation, record keeping, and reporting for emissions unit R001 includes an annual limitation, record keeping, and reporting for emissions unit R002 also.