



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Central Regional Office, 627 Main Street, Worcester, MA 01608

JANE SWIFT  
Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner

July 3, 2002

Saloom Furniture Company, Inc.  
115 Coburn Avenue  
Gardner, MA-01440

Attention: Darlene Bastarache

Re:CR - Winchendon  
NMPCA-BWPAQ02  
Case Goods Wood Furniture Assembly and  
Finishing Operations  
Transmittal #W024926  
FMF # 194049  
FMF Classification SM1000  
SSEIS # 118/410  
**APPROVAL**

Dear Ms. Bastarache:

The Department of Environmental Protection, Bureau of Waste Prevention, Permitting Section (Department), has reviewed the plans, specifications, Standard Operating Procedures and Standard Maintenance Procedures for the proposed installation and operation of wood furniture manufacturing with emissions of Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) from the coating of wood furniture at your 115 Coburn Avenue, Gardner, Massachusetts facility as submitted under the seal and signature of Mark Bannon, PE #40552.

The Department is of the opinion that the material submitted is in conformance with the current Massachusetts Air Pollution Regulations and in accordance with 310 CMR 7.02 and hereby approves the application subject to the emission limits, special conditions, record keeping, reporting, and general conditions noted herein.

I. GENERAL INFORMATION

Saloom Furniture Company, Inc. (the Permittee) manufactures and coats wood furniture, primarily case goods, at its facility located in Gardner. The Permittee had previously received an Air Quality APPROVAL (C-P-92-011, dated June 25, 1992) which imposed a 12 ton rolling twelve month long term VOC emission limit for coating operations at the facility. The Permittee ceased manufacturing and coating at this facility and opened a facility in Winchendon. A Non-Major Comprehensive Plan Approval (Tr. # P22209) was issued for that facility.

An increase in the demand for wood furniture and an expansion of furniture styles with limited opportunity to increase production at the Winchendon facility has resulted in the Permittee to shift

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some operations back to the Gardner facility. This Approval replaces Approval C-P-92-011 in its entirety.

The Department approves the use of Pollution Prevention technologies including coating reformulation and input substitution resulting in lower VOC emissions per unit of furniture. The Permittee shall also utilize coating equipment and procedures consistent with current BACT and the federal EPA Control Technology Guideline (CTG) wood furniture finishing requirements.

## II. PROJECT DESCRIPTION

The Permittee will manufacture wooden furniture, primarily case goods and some work from its Winchendon facility. Pre-cut dimensioned wood stock is delivered to the facility where the parts are assembled or reworked in the woodworking shop. Operations include hand sanding, nailing and gluing. Particulates that are generated from woodworking are collected by a standard wood working fabric filtration vacuum collection (baghouse) system that is internally vented. Coatings may be sprayed or hand finished depending on the desired finish. Two Devilbliss Open Faced spray booths equipped with high volume-low pressure spray guns and fabric filters shall be used for spray coating operations. The Permittee has proposed that up to 30 cases may be produced per day at the facility.

The Department has determined that BACT for the Permittee is limiting long-term twelve consecutive month facility wide VOC emissions to less than 30 tons through the application of low VOC coatings technology and improved operations and maintenance, including good housekeeping practices. Enforceable short-term emission limits on the VOC content in coating formulations shall also be incorporated into this Approval as noted in the Tables 1 and 2. HAP emissions are also limited below major source MACT thresholds.

A 1.5 MMBtu/hr high efficient Peerless Cast Iron Boiler provides space heat for the facility. This boiler is below current Air Quality permitting thresholds.

## III. SHORT AND LONG TERM EMISSION LIMITS

Two tables of enforceable short term limits for the surface coating of wood furniture products are necessary due to the different calculation methods used to document BACT and RACT CTG compliance. The Permittee is subject to the requirements of the Federal Wood Furniture RACT CTG as potential VOC emissions are greater than 25 tons per rolling twelve-month period.

The following short and long-term emission limits noted in Table 1,2 &3 shall not be exceeded:

**TABLE 1- Short Term BACT Wood Furniture Emission Limits**

| COATING TYPE          | EMISSION LIMIT <sup>1</sup><br>LBS VOC/GAL SOLIDS AS APPLIED |
|-----------------------|--|
| Semitransparent Stain | 89.4   |
| Wash Coat             | 35.6   |
| Opaque Stain          | 13.0   |
| Sealer                | 23.4   |
| Pigmented Coat        | 15.6   |
| Clear Topcoat         | 23.4   |
| Pre-Stain Toner       | 6.6  |

<sup>1</sup> As applied minus water and exempt non-photochemically reactive VOC  
 LBS VOC/GAL = pounds of Volatile Organic Compounds per gallon

**TABLE 2 - CTG Wood Furniture RACT Short Term Emission Limits**

| Operation | RACT  | VOC Limit<br>(LB. VOC/LB. Solids as applied) |
|-----------|---|--|
| Finishing | Topcoats (Aqueous)                          | 0.8  |
|           | Higher solids sealers and Topcoats:         |  |
|           | Sealers                                     | 1.9  |
|           | Topcoats                                    | 1.8  |
|           | Acid-cured alkyd amino vinyl sealers        | 2.3  |
|           | Acid-cured alkyd amino conversion Varnishes | 2.0  |
| Cleaning  | Waterborne strippable spray booth coating   | 0.8  |

**TABLE 3 - Facility Wide Long Term Emission Limits\***

| EMISSION SOURCE                                    | Acetone (Tons) | VOC (Tons) | HAP (Tons)                 |
|--|----------------|------------|----------------------------|
| Furniture Manufacturing and clean-up Facility-wide | 7              | 30         | <10 Single<br><25 Combined |

\* Consecutive rolling twelve-month totals.

IV. SPECIAL CONDITIONS

- A. The Permittee shall maintain continuous compliance with all short and long-term emission limits as noted in Tables 1-3. Coatings used in small amounts are exempted from the limits in Table 1 provided the following conditions are met:
1. The total amount of all coatings exempted does not exceed 55 gallons on a rolling twelve month period at the facility; and,
  2. The Permittee notifies the Department that this exemption is being used 30 days prior to its first use; and,
  3. The Permittee identifies the coatings, which will be covered by this exemption.
- B. The Permittee shall notify the DEP Central Regional office BWP Compliance and Enforcement Section immediately when a noncompliant situation is identified and shall submit a letter within 3 working days describing the noncompliant situation and corrective actions taken.
- C. Good housekeeping is defined as storing, using and disposing of VOC in a manner that will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover. The Permittee shall dispose of VOC material in a manner consistent with Federal and State Hazardous Waste Regulations. All used wiping rags shall be stored in a covered container.
- D. Spray guns shall utilize High Volume Low Pressure (HVLP) application and be operated in accordance with the recommendations of the manufacturer.
- E. Each paint spray booth shall utilize two or more layers of dry fiber mat filter with a total thickness of at least two inches, that achieves particulate control efficiency of at least 97% by weight. Filter material shall be disposed of in accordance with all applicable DEP regulations.
- F. Face velocity of air at filter shall not exceed 200 feet per minute.
- G. Spray gun cleaning shall be performed inside a totally enclosed gun washer system and any used cleanup solution shall be recirculated or stored or disposed of in a manner that will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover.
- H. Acetone use per calendar month shall not exceed 1 ton.
- I. Spray booths shall have a stack conforming to the following criteria:
- 1) The stack shall discharge vertically upwards; and
  - 2) The stack shall not have rain protection of a type that restricts the Vertical exhaust flow; and
  - 3) The stack gas exit velocity shall be greater than 40 feet per second; and
  - 4) The minimum stack height shall be 35 above the ground or ten feet above roof level.

J. Paint booth stack emissions shall have 0% opacity.

K. Maintain onsite a Work Practice Implementation Plan containing at a minimum, the following components:

- 1) A Training plan for new employees upon hiring and retraining employees annually which contains a list of current personnel to be trained, an outline of subjects to be covered, lesson plans, and methods to document completion of training; and
- 2) An inspection and maintenance leak program specifying a schedule (minimum monthly), documentation (an inspection checklist and records demonstrating repairs made) and a timeframe for repair (15 days or less); and
- 3) A solvent accounting system which records the quantity and type of organic solvents used for cleaning and wash-off, number of pieces washed off, reasons for wash-off, quantity of spent solvent generated and whether it was recycled or disposed of.

#### V. RECORD-KEEPING REQUIREMENTS

A. The Permittee shall prepare and maintain sufficient records to demonstrate compliance with the long and short-term emission limits. Such records shall include, but are not limited to:

- 1) For each coating, as applied:
  - a. Gallons of coatings used; and
  - b. Coating density (pounds per gallon); and
  - c. Pounds of VOC/HAP per gallon of coating; and
  - d. Pounds of solids per gallon of coating; and
  - e. Pounds of water per gallon of coating; and
  - f. Pounds of other non-VOC liquid per gallon of coating; and
  - g. Pounds of VOC per gallon of solids as applied; and
  - h. Classification of coating type by definition for BACT and CTG RACT short-term limit documentation.
- 2) Cleaning solvent formulation, use, and gallons used and pounds VOC per gallon.
- 3) Calendar month records to demonstrate compliance with the consecutive twelve month rolling long-term facility wide VOC/HAP limits.
- 4) Records necessary to document the Work Practice Implementation Plan as noted in Section IV.K. above.
- 5) Maintenance records of filter pad replacement and disposal.

B. All records shall be kept on site for five (5) years and shall be made available to the DEP upon request.

LIST OF PERTINENT INFORMATION FOR TR# W024926

Name of Facility: Saloom Furniture Company Inc.  
Location: Gardner, Massachusetts  
Submitted By: Bannon Engineering  
Attested to by: Mark Bannon PE# 40552

Design Data Sheets: BWP AQ CPA-3 Non-fuel Emissions  
BWP AQ SFP-1 Paint Spraying

APPEAL OF APPROVAL

Approvals are actions of the Department. If you are aggrieved by such action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of the Approval. Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to: Commonwealth of Massachusetts, Department of Environmental Protection, P.O. Box 4062, Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described herein. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

FORM E - (TR# W024926) QUARTERLY REPORT FOR SALOOM FURNITURE COMPANY, INC.  
 115 Coburn Avenue, Gardner, MA 01440

Quarter Being Reported

W024926      175869      118-0410  
 TR Number      FAC ID Number      SSeis No.      Date

Department approved VOC/HAP Emission Limits from the coating of wood furniture at Saloom Furniture Company, Inc. include:

TABLE 1 - Short Term BACT Wood Furniture Emission Limits

| EMISSION SOURCE       | EMISSION LIMIT - LBS VOC/GAL SOLIDS AS APPLIED |
|-----------------------|--|
| Semitransparent Stain | 89.4   |
| Wash Coat             | 35.6   |
| Opaque Stain          | 13.0   |
| Sealer                | 23.4   |
| Pigmented Coat        | 15.6   |
| Clear Topcoat         | 23.4   |
| Pre-Stain Toner       | 6.6  |

As applied minus water and exempt non-photochemically reactive VOC

TABLE 2 - CTG Wood Furniture RACT Short Term Emission Limits

| Operation | RACT  | VOC Limit - lbs VOC/lbs Solids as applied |
|-----------|---|---|
| Finishing | Topcoats (Aqueous)                          | 0.8                                       |
|           | Higher solids sealers and Topcoats:         |   |
|           | Sealers                                     | 1.9                                       |
|           | Topcoats                                    | 1.8                                       |
|           | Acid-cured alkyd amino vinyl sealers        | 2.3                                       |
|           | Acid-cured alkyd amino conversion Varnishes | 2.0                                       |
| eaning    | Waterborne strippable spray booth coating   | 0.8                                       |

TABLE 3 - Facility Wide Long Term Emission Limits\*\* Consecutive rolling twelve month totals.

| EMISSION SOURCE                                    | Acetone (Tons) | VOC (Tons) | HAP (Tons)              |
|--|----------------|------------|-------------------------|
| Furniture Manufacturing and clean-up Facility-wide | 7              | 30         | <10 Single <25 Combined |

TABLE 4 - Compliance Summary

| Month | Table 1 Limits<br>Y/N <sup>1</sup> | Table 2 Limits<br>Y/N | Long Term Coating Limits* |     |       |
|-------|------------------------------------|-----------------------|---------------------------|-----|-------|
|       |                                    |                       | ACETONE                   | VOC | HAP** |
|       |                                    |                       |                           |     |       |
|       |                                    |                       |                           |     |       |
|       |                                    |                       |                           |     |       |

<sup>1</sup>List consecutive twelve month total gallons non-compliant coatings used. (Not to exceed 55 gallons in any twelve month period.)

\*Tons per consecutive twelve month period.

\*\*Combined HAP. If combined HAP exceeds 10 tons per consecutive twelve months, document both single and combined HAP amounts.

Saloom Furniture Co., Inc. has complied with the short and long term emission limits and conditions set forth by the Department for the emissions specified by the Air Quality Approval TR# W024926.

igned by a Responsible Official of Saloom Furniture Company, Inc. \_\_\_\_\_

Date: \_\_\_\_\_

