

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Blue Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Sam Moore Furniture LLC  
1556 Dawn Drive, Bedford, Virginia  
Permit No. BRRO-30072

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Sam Moore Furniture LLC has applied for a renewal of their Title V Operating Permit for its Bedford facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

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

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

## **FACILITY INFORMATION**

### Permittee

Hooker Furniture Corp.  
440 E. Commonwealth Blvd.  
Martinsville, VA 24112

### Facility

Sam Moore Furniture LLC  
1556 Dawn Drive  
Bedford, VA 24523

County-Plant Identification Number: 51-019-0006

## **SOURCE DESCRIPTION**

NAICS Code: 337122 – Non-upholstered Wood Household Furniture Manufacturing.

This source is comprised of two facilities that were permitted separately and were determined to be one source during the issuance of the original Title V permit because both facilities are in the same NAICS group, are located on adjacent property and are under the same ownership. The two facilities have been merged and are considered one facility by both Sam Moore Furniture LLC (Sam Moore) and the DEQ.

The source manufactures upholstered chairs; the wooden frames are made from purchased dimensioned wood and plywood. The manufacturing process includes various machining operations to prepare furniture parts: cutting, sewing and gluing foam and fabric to prepare the furniture foam and fabric for assembly; installing springs, foam and cardboard to the frame; installing precut and sewn upholstery fabric; staining, lacquering and enameling the chairs; and packaging the chairs for shipment.

The facility is a “Title V source by rule”. The source received a State Operating Permit on April 15, 2013 limiting their criteria pollutant and Hazardous Air Pollutant (HAP) emissions to below the major source<sup>1</sup> thresholds. The finishing and gluing operations at the facility were subject to MACT JJ – Wood Furniture Manufacturing Operations prior to the source receiving the permit to limit their emissions and continue to be subject to MACT JJ under the EPA’s “Once In/Always In”<sup>2</sup> policy for facilities subject to a MACT. Virginia regulations (9 VAC 5-80-110.A.2) states that for any source other than a major source subject to this article [Federal Operating Permits for Stationary Sources], the board shall include in the permit all applicable requirements that apply to emissions units that cause the source to be subject to this article. Sam Moore Furniture LLC is not a major source and the finishing and gluing operations are the only emission units that cause the source to be subject to Title V permitting.

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<sup>1</sup> “Major Source” is defined in 9 VAC 5-80-60.

<sup>2</sup> EPA’s March 16, 1995, “Potential to Emit for MACT Standards Guidance on Timing Issues”

This source is located in an attainment area for all pollutants, and is not a PSD major source. The finishing and gluing operations are currently permitted under a Minor NSR Permit issued October 26, 2001 and a State Operating Permit issued April 15, 2013.

**COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

**EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emission units at the facility are reflected in the Title V permit on Page 4.

**EMISSIONS INVENTORY**

A copy of the 2012 annual emission update is attached. Emissions are summarized in the following tables.

2012 Actual Emissions

	2012 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM-10	NO <sub>x</sub>
Total	18.5	3.7	0.15	6.5	3.0

2012 Facility Hazardous Air Pollutant Emissions

Pollutant	2012 Hazardous Air Pollutant Emission in Tons/Year
Toluene	0.04
Xylenes	0.04
Glycol Ethers	0.08

## **Finishing Operation (F003)**

### **Limitations**

- Condition 1** Particulate emissions from the spray booths are required to be controlled by fiberglass filters, or equivalent.
- Condition 2** Visible emissions from the spray booths shall not exceed 5%.
- Condition 3** VOC emissions from the finishing process shall be minimized by proper spraying technique, the use of HVLP and air assisted airless spray equipment.
- Condition 4** Total emissions from the finishing spray booths are limited to 3.5 lb/hr for PM and PM-10 (each), 8.9 tons/year for PM and PM-10 (each) and 94.0 tons/year for VOC.

### **Monitoring**

- Condition 5** The spray booths are required to be equipped with a device to continuously measure the differential pressure drop across the filters.
- Condition 6** Each spray booth is required to be observed for the presence of visible emissions at least once per day that the booth operates.
- Condition 7** The source is required to take measures to minimize the duration and frequency of excess emissions, including the following: develop a maintenance schedule and maintain records of all scheduled and unscheduled maintenance, maintain an inventory of spare parts, have available written operating procedures and train operators in the proper operation of all air pollution equipment. Records of maintenance and training are required to be maintained on site for a period of five years.

### **Recordkeeping**

- Condition 8** The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. The records shall include, but are not limited to: monthly and annual material balance including throughput and emissions of VOC and PM, documentation of information used in the calculations used to show compliance (e.g. emission factors, transfer and control efficiency), records of visual observations, scheduled and unscheduled maintenance and operator training.

The monitoring (daily visible emission observations) and recordkeeping (monthly and annual material balance including throughput, emissions, documentation of information used in the calculations to show compliance, visible emission observations and maintenance) that is included in this section (Finishing Operation (F0003)), in conjunction with the monitoring and recordkeeping included in the MACT JJ section of the permit is considered sufficient to assure compliance with the limits in the permit. This

monitoring, recordkeeping and reporting is based on Virginia's New and Modified Sources regulations (9 VAC 5-80-1100 et seq.), State Operating Permits regulations (9 VAC 5-80-800 et seq.) and the periodic monitoring regulations (9 VAC 5-80-110 E).

### **Gluing Stations (G006)**

#### **Limitations**

- Condition 9** Visible emissions from each glue spraying station exhaust shall not exceed 20% except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.
- Condition 10** Volatile Organic Compound emissions from the Gluing Stations (G006) are limited to 4.8 tons/year.

#### **Monitoring**

- Condition 11** Each glue spray station is required to be observed for the presence of visible emissions at least once per day that the station operates.
- Condition 12** The source is required to take measures to minimize the duration and frequency of excess emissions, including the following: develop a maintenance schedule and maintain records of all scheduled and unscheduled maintenance, maintain an inventory of spare parts, have available written operating procedures and train operators in the proper operation of all air pollution equipment. Records of maintenance and training are required to be maintained on site for a period of five years.

#### **Recordkeeping**

- Condition 13** The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. The records shall include, but are not limited to: monthly and annual material balance including throughput, transfer efficiency and emissions of VOC, records documenting the information used in the calculations to show compliance, records of visible emissions observations, scheduled and unscheduled maintenance and operator training.

The monitoring (daily visible emission observations) and recordkeeping (monthly and annual material balance including throughput, transfer efficiency, emissions, documentation of information used in the calculations to show compliance, visible emission observations, scheduled and unscheduled maintenance and training) that is included in this section (Gluing

Stations (G006)), in conjunction with the monitoring and recordkeeping included in the MACT JJ section of the permit is considered sufficient to assure compliance with the limits in the permit. This monitoring, recordkeeping and reporting is based on Virginia's Existing Stationary Sources regulations (9 VAC 5-40-10 et seq.), State Operating Permits regulations (9 VAC 5-80-850 et seq.) and the periodic monitoring regulations (9 VAC 5-80-110 E).

### **Process Equipment Requirements - MACT Subpart JJ – Wood Furniture Manufacturing Operations**

The finishing area is subject to the requirements of 40 CFR Part 63, Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations. The permit includes all applicable requirements of Subpart JJ. Subpart JJ was revised on November 21, 2011. Revisions for wood furniture manufacturing operations include a 1 percent formaldehyde coating and contact adhesive limit and an alternative 400 pound per 12-month formaldehyde use limit as well as a prohibition on the use of conventional spray guns. The effective date for these requirements is 3 years from the effective date of the standards or November 21, 2014.

**Condition 14** The facility is required to be operated in compliance with the requirements of 40 CFR Part 63 Subpart JJ, including future revisions.

### **Limitations**

**Condition 15** Emission standards for Volatile Hazardous Air Pollutants (VHAP) including a weighted average VHAP content, use of compliant finishing materials, cleaning operations strippable spray booth coating limits, compliant contact adhesives and formaldehyde limits.

### **Continuous Compliance**

**Condition 16** Requirements to show continuous compliance with the VHAP emissions limits.

### **Testing**

**Condition 17** Requires any compliance testing that is conducted be conducted using test methods and procedures as specified in 40 CFR 63.805 of Subpart JJ.

### **Submittals**

**Condition 18** Requires that all submittals regarding Subpart JJ be sent to both the EPA and DEQ.

### **Operations and Maintenance**

**Condition 19** The source is required to meet operational and maintenance requirements including operating and maintaining the facility in a manner consistent with good air pollution control practices for minimizing emissions and correcting malfunctions as soon as practicable.

### **Work Practice Standards**

**Condition 20** The source is required to develop and implement the work practice standards outlined in the permit including the following: Work Practice Implementation Plan, Operator Training Course, Inspection and Maintenance Plan, Cleaning and Washoff Solvent Accounting System, Chemical Composition of Cleaning and Washoff Solvents limits, Spray Booth Cleaning, Storage Requirements, Application Equipment Requirements, Line Cleaning, Gun Cleaning, Washoff Operations and Formulation Assessment Plan for Finishing Operations.

### **Recordkeeping**

**Condition 21** The source is required to maintain records for emission limit purposes, calculations, the work practice implementation plan, compliance certifications, records associated with the compliance status reports and semiannual reports.

The monitoring, recordkeeping and reporting that is included in this section (MACT Subpart JJ), in conjunction with the monitoring and recordkeeping included in the Finishing Operations (F003) and Gluing Stations (G006) sections of the permit is considered sufficient to assure compliance with the limits in the permit. This monitoring, recordkeeping and reporting are based on MACT JJ (40 CFR 63.800 et seq.)

### **Notification of Compliance**

**Condition 22** The source is required to submit notifications of compliance that are signed by a responsible official and the notification is required to include the methods that were used to determine compliance, the results of all performance tests, the methods used for determining continuing compliance, the type and quantity of hazardous air pollutants emitted, an analysis demonstrating whether the facility is a major source or an area source and a statement by the permittee as to whether the facility has complied with Subpart JJ as expressed in the permit.

### **Reporting**

**Condition 23** The source is required to submit reports demonstrating continuous compliance and any exceedance of a baseline level.

### **Facility Wide Conditions**

**Condition 24** Total VOC emissions from the facility are limited to 99.8 tons/year.

**Condition 25** Total HAP emissions from the facility are limited to 9.5 tons/year for individual HAP and 24.5 tons/year for all HAP combined.

**Condition 26** The source is required to maintain records of monthly and annual emissions of HAP to verify compliance with the emission limitations in Conditions 24 and 25 and records used in the calculations to show compliance.

**Condition 27** The source is required to be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods.

**Condition 28** If testing is conducted, the source is required to use the appropriate method(s) in accordance with procedures approved by the DEQ.

### **Streamlined Requirements**

**The portion of Condition 5** of the October 26, 2011 minor NSR Permit that states “and by complying with the Work Practice Standards of 40 CFR 63, Subpart JJ.” has been streamlined out of the permit because the applicable parts of MACT JJ have been included in the Title V Permit (See MACT JJ Section of the Title V Permit).

**Condition 11** of the October 26, 2001 minor NSR Permit has been streamlined out of the permit because the applicable parts of MACT JJ have been included in the Title V Permit (See MACT JJ Section of the Title V Permit).

**Condition 13b** of the October 26, 2001 minor NSR Permit has been streamlined out of the permit because the applicable recordkeeping requirements of MACT JJ have been included in the Title V Permit (See MACT JJ Section of the Title V Permit).

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

## **Comments on General Conditions**

### **33-38 Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

### **44 Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

### **63–66 Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition 44 and General Condition 63-66. For further explanation see the comments on General Condition 44 above.

### **71 Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

## **STATE ONLY APPLICABLE REQUIREMENTS**

None

## **FUTURE APPLICABLE REQUIREMENTS**

Subpart JJ was revised on November 21, 2011. Revisions for wood furniture manufacturing operations include a 1 percent formaldehyde coating and contact adhesive limit and an alternative 400 pound per 12-month formaldehyde use limit as well as a prohibition on the use of conventional spray guns. The effective date for these requirements is 3 years from the effective date of the standards or November 21, 2014. This requirement was included in the permit with the effective date of November 21, 2014 (T5-15d).

## **INAPPLICABLE REQUIREMENTS**

The facility is subject to 40 CFR 98.346 and is required to maintain GHG monitoring records and calculations. However, the requirements contained in the GHG Reporting Rule in 40 CFR 98 are currently not included in the definition of applicable requirements in 40 CFR 70.2 and 71.2 and are therefore not included in the Title V permit. There are no applicable GHG permitting requirements.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A.4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

## **COMPLIANCE PLAN**

None

## **INSIGNIFICANT EMISSION UNITS**

No Insignificant Emission Units were included in the permit application.

## **CONFIDENTIAL INFORMATION**

No confidential information request has been made. All portions of the Title V permit and application are available for public review.

## **PUBLIC PARTICIPATION**

The draft permit will be published in the *Bedford Bulletin* on October 23, 2013. The public comment period ran from October 23, 2013 to November 22, 2013. No comments were received. The EPA review period ended on December 16, 2013. No comments were received.