

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

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Southern Finishing Company  
801 East Church Street  
Martinsville, Virginia  
Permit No. BRRO-30515

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, Southern Finishing Company has applied for a Title V Operating Permit for its Martinsville facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_  
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Date: \_\_\_\_\_

Air Permit Manager: \_\_\_\_\_  
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Date: \_\_\_\_\_

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Robert J. Weld

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

## **FACILITY INFORMATION**

### Permittee

Southern Finishing Company  
P.O. Box 888  
Stoneville, VA 27048

### Facility

Southern Finishing Company  
801 East Church Street  
Martinsville, VA 24112

County-Plant Identification Number: 51-690-0500

## **SOURCE DESCRIPTION**

NAICS Code: 337122 – Non-upholstered Wood Household Furniture Manufacturing  
Southern Finishing Company (Southern Finishing) is a manufacturer of wood household furniture components. The original source registration (for Pulaski Furniture Corp., Martinsville Division) was received on November 10, 1972. The facility consists of two small boilers, woodworking and finishing equipment. In 2010 Southern Finishing purchased the former Hooker Furniture facility (Registration No. 30261 – physical address is 420-A Commonwealth Blvd). That part of the facility is referred to as “Plant 15”.

The Southern Finishing plant emits particulate matter (PM, PM-10 and PM-2.5), SO<sub>2</sub>, CO, NO<sub>2</sub>, volatile organic compound (VOC) and Hazardous Air Pollutant (HAP). The plant is considered a major source of VOC and HAP. Individual HAPs include Toluene, Xylene, Methanol, Ethyl benzene, Glycol Ethers and Formaldehyde.

The Wood Furniture Manufacturing Operations MACT standard (40 CFR 63 Subpart JJ) applies to the finishing operations portion of the facility as an existing source (commenced construction before the December 7, 1995 MACT applicability date). The Industrial, Commercial, and Institutional Boilers and Process Heaters MACT standard (40 CFR 63 Subpart DDDDD) applies to the two wood /fuel oil fired 9.0 MMBtu/hr boilers as existing sources (commenced construction prior to June 5, 2010).

The Plywood and Composite Wood Products Manufacture MACT standard (40 CFR 63 Subpart DDDD) applies to the lumber drying kilns at the facility. However, per 40 CFR 63.2252, the permittee is not required to comply with the monitoring or recordkeeping requirements of Subpart DDDD or any other requirement in Subpart A except for the initial notification required in §63.9(b). The lumber kilns are listed in the Emission Units table since they do not qualify as

Insignificant Emission Units; however, the kilns are not covered by a minor NSR permit and are not considered as a source of visible emissions.

The woodworking equipment is subject to Compliance Assurance Monitoring (CAM).

This facility is a PSD definition major source due to potential VOC emissions exceeding 250 tons/yr. It is located in an area currently regarded as in attainment for all pollutants.

The facility has two minor New Source Review permits approved on February 2, 2007 and amended on May 23, 2008 and approved on December 28, 2010. The application for renewal of this federal operating permit was received on June 29, 2009 and was deemed timely and administratively complete.

### 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 table.

	2012 Criteria Pollutant Emission in Tons/Year					
	CO	VOC	SO <sub>2</sub>	PM-10	NO <sub>2</sub>	PM <sub>2.5</sub>
Total	5.4	180.9	0.8	6.5	4.5	4.9

	2012 Hazardous Air Pollutant Emission in Tons/Year					
	Toluene	Xylenes	Formaldehyde	Ethyl benzene	Glycol Ethers	Methanol
Total	4.36	2.37	0.04	0.57	1.80	3.66

## **EMISSION UNIT APPLICABLE REQUIREMENTS**

The following section discusses requirements for the emissions units at the facility that are subject to Title V permitting. These requirements come from applicable federal requirements. The conditions are not repeated verbatim from the permit. The regulatory authority for each condition is listed in parentheses () below each condition in the permit.

### **Fuel Burning Equipment**

The two wood/No. 2 fuel oil boilers are rated at 9.0 MMBtu/hr and were installed in 1963, prior to the NSPS for boilers of this size. The boilers are not part of any minor NSR permits; however, they are subject to 9 VAC 5 Chapter 40 Existing Stationary Source regulations in Article 8 – Emission Standards for Fuel Burning Equipment (9 VAC 5-40-880 et seq.). The pre-control emissions for the boilers are less than the major source threshold so CAM does not apply. Both boilers are subject to MACT Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters since they are located at a major source of HAP.

### **Limitations**

- Condition 1** Particulate emissions from the boilers are required to be controlled by multicyclones.
- Condition 2** The two fuels that are allowed to be used in the boilers are wood waste and oil. The oil is required to meet the specifications for fuel oil number 1 or 2.
- Condition 3** Emissions from the boilers are limited to 0.5 lbs/MMBtu for PM and 23.8 lbs/hr for SO<sub>2</sub>. These limits are based on the Existing Stationary Source standards in 9 VAC 5-40-900 and 9 VAC 5-40-930.
- Condition 4** Visible emissions from each boiler stack is limited to 20% opacity except during one six-minute period in any one hour in which visible emissions are limited to 60% opacity. These limits are based on the Existing Stationary Source standards in 9 VAC 5-40-940.

### **Monitoring**

- Condition 5** Each boiler stack is required to be observed for the presence of visible emissions at least once per calendar day that the boiler operates.
- Condition 6** The source must develop maintenance and inspection schedules, have written operating procedures, train operators, maintain an inventory of spare parts and keep records regarding the operation of the boilers and multicyclones.

**Recordkeeping & Reporting**

**Condition 7** The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. This includes visible emission monitoring results, annual fuel combustion, sulfur content of the fuel oil used and operations and maintenance records.

**MACT Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters – Fuel Burning Equipment (B1 & B4)**

**General Compliance**

**Condition 8** The permittee is required to be operated in compliance with the requirements of 40 CFR Part 63 Subpart DDDDD, by the applicable compliance dates as specified in 40 CFR 63.7495(b).

**Testing, Fuel Analyses, and Initial Compliance Requirements**

**Condition 9** The permittee is required to meet the Emission Limitations, Work Practice Standards and Operating Limits specified in 40 CFR 63.7500.

**Condition 10** The permittee is required to comply with the General Compliance Requirements specified in 40 CFR 63.7505.

**Condition 11** The permittee is required to comply with the Testing, Fuel Analyses and Initial Compliance Requirements specified in 40 CFR 63.7505.

**Condition 12** The permittee is required to conduct subsequent performance tests, fuel analyses, or tune-ups as specified in 40 CFR 63.7515.

**Condition 13** The permittee is required to use the stack tests and procedures as specified in 40 CFR 63.7520.

**Condition 14** The permittee is required to use the fuel analyses, fuel specification, and procedures as specified in 40 CFR 63.7521.

**Condition 15** The permittee is required to comply with the monitoring, installation, operation, and maintenance requirements specified in 40 CFR 63.7525.

**Condition 16** The permittee is required to demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards as specified in 40 CFR

63.7530.

**Condition 17** The permittee can use efficiency credits earned from implementation of energy conservation measures to comply with this subpart, as specified in 40 CFR 63.7533.

### **Continuous Compliance Requirements**

**Condition 18** The permittee is required to monitor and collect data as specified in 40 CFR 63.7535.

**Condition 19** The permittee is required to demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards as specified in 40 CFR 63.7540.

### **Notifications, Reports and Records**

**Condition 20** The permittee is required to submit notifications as specified in 40 CFR 63.7545.

**Condition 21** The permittee is required to submit reports as specified in 40 CFR 63.7550.

**Condition 22** The permittee is required to keep records as specified in 40 CFR 63.7555 and 40 CFR 63.7560.

**Condition 23** The permittee is required to comply with the applicable General Provisions as specified in 40 CFR 63.7565.

The monitoring, recordkeeping and reporting that is included in this section meet permit content obligations at 9 VAC 5-80-110 E & K and are considered sufficient to assure compliance with the limits included in this permit.

### **Process Equipment Requirements - Woodworking**

The woodworking equipment includes various saws, shapers and sanders. This equipment is controlled by five fabric filters that have pre-control particulate emissions that exceed the major source threshold. The woodworking equipment is not covered by a minor NSR permit. The equipment is subject to 9 VAC 5 Chapter 40 Existing Stationary Source regulations in Article 17 – Emission Standards for Woodworking Operations (9 VAC 5-40-2250 et seq.) and Compliance Assurance Monitoring (CAM). The Title V permit includes PM emission limits (9 VAC 5-40-

2250 et seq.); the PM limits are a surrogate<sup>1</sup> for PM-10 with regard to CAM applicability.

### **Limitations**

- Condition 24** Particulate emissions from woodworking operations are required to be controlled by five fabric filters.
- Condition 25** Particulate emissions from each wood dust control device exhaust are limited to 0.05 gr/dscf.
- Condition 26** Visible emissions from wood dust emission points are limited to 20% opacity except for one six-minute period in any one hour of not more than 60% opacity.

### **Monitoring**

- Condition 28** CAM – The source is required to implement a Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter controlling particulate emissions from the woodworking operation. The measurement approach is to conduct daily observations of the fabric filter to determine the presence or absence of visible emissions from the exhaust or structure.
- Condition 29** CAM – The source is required to conduct monitoring and fulfill obligations specified in 40 CFR 64.7 (Commencement of operation, Proper Maintenance, Continued Operation, Response to Excursions and Exceedances and Documentation of need for improved monitoring) and 40 CFR 64.9 (Reporting and Recordkeeping).
- Condition 30** CAM – Except for monitoring malfunctions, associated repairs and required QA and QC activities the source is required to conduct all monitoring in continuous operation (or at all required intervals) at all times the fabric filter is operating. The source shall use the data collected to assess the operation of the control device and associated control system.
- Condition 31** CAM – Upon detecting an excursion or exceedance, the source shall restore operation of the fabric filter to its normal or usual manner of operation as expeditiously as practicable following the procedures outlined in this condition.
- Condition 32** CAM – This condition states that monitoring results, review of operation and maintenance procedures and records and inspection of the control device, captures

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<sup>1</sup> Preamble to the Compliance Assurance Monitoring final rule. Federal Register, Vol. 62, No. 204; Wednesday, October 22, 1997 page 54912.

system and process will be used (at a minimum) to determine if acceptable procedures were used in response to an excursion or exceedance.

**Condition 33** CAM – This condition states the procedures for addressing when the source identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data.

**Condition 34** CAM – This condition sets a limit of five excursions for any consecutive 180 days for developing, implementing and maintaining a written Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8.

**Condition 35** CAM – This condition states that the requirements of the CAM plan does not excuse the source from complying with any existing requirements under federal, state, or local law or any other applicable requirement.

### **Recordkeeping & Reporting**

**Condition 27** The source is required to maintain records of visible emission evaluations and all operations and maintenance.

**Condition 36** CAM – The source is required to maintain records of monitoring data, monitoring performance data, corrective actions taken, any written QIP and any supporting documentation.

**Condition 37** CAM – The source is required to submit CAM reports as part of the Title V semi-annual monitoring reports, the minimum requirements for these reports are outlined in this condition.

The monitoring, recordkeeping and reporting that is included in this section meet permit content obligations at 9 VAC 5-80-110 E & K and are considered sufficient to assure compliance with the limits included in this permit.

### **Process Equipment Requirements – Finishing**

There are three groups of finishing equipment. Twelve conventional spray booths (ES-3a) are existing equipment and were installed prior to minor NSR permitting. Three Wood Spray Booths (WB-13, 14 & 15) are included in a minor NSR permit dated May 23, 2008. A collection of finishing equipment (“Plant 15” - coaters and spray booths) are included in a minor NSR permit dated December 28, 2010. MACT Subpart JJ - Wood Furniture Manufacturing Operations is applicable to this equipment as an existing source.

**Limitations**

- Conditions 38, 39 and 40** Particulate emissions from the coating booths are required to be controlled by filters.
- Condition 41** The source is required to implement work practice standards for the handling of volatile organic compounds in all of the finishing areas of the facility.
- Condition 42** The VOC throughput for WB-13, 14 and 15 (combined) is limited to 39 tons per year, calculated monthly.
- Condition 43** The VOC throughput for Plant 15 is limited to 39 tons per year, calculated monthly.
- Condition 44** The VOC emissions from the operation of coating booths WB-13, 14 and 15 are limited to 39 tons/year, calculated monthly.
- Condition 45** The PM-10 emissions from the operation of Plant 15 spray booth 15-6 are limited to 2.7 lbs/hr.
- Condition 46** The PM-10 emissions from the operation of Plant 15 spray booth 15-7 are limited to 5.4 lbs/hr.
- Condition 47** The total PM-10 emissions from the Plant 15 Finishing Equipment are limited to 1.3 tons/yr. The total VOC emissions from the Plant 15 Finishing Equipment are limited to 39 tons/year. Annual emissions are required to be calculated monthly as the sum of each consecutive 12 month period.
- Condition 48** Visible emissions from each of the 12 conventional wood finishing spray booths (ES-3a) cannot exceed 20% opacity except during one six-minute period in any one hour in which the visible emissions cannot exceed 60%.
- Condition 49** Visible emissions from each spray booth (WB-13, 14 and 15) cannot exceed 5% opacity.
- Condition 50** Visible emissions from each finishing process in Plant 15 cannot exceed 5% opacity.

**Monitoring**

- Condition 51, 52 and 53** Spray booths WB-13, 14 and 15 and those in Plant 15 are required

to be equipped with devices to continuously monitor the pressure drop across the filter in each booth. The source is required to record the daily pressure drop for each spray booth.

**Condition 54** The source is required to conduct daily visible emission evaluations on each spray booth stack (ES-3a, WB-13, 14 & 15 and 15-6 & 15-7). If visible emissions are observed the source must either correct the issue so that no visible emissions are observed or conduct a VEE in accordance with EPA Method 9.

**Condition 55** The source is required to develop a maintenance schedule and maintain records of all maintenance, have written operating procedures and to conduct training on those procedures.

### **Recordkeeping**

**Condition 56** The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. This includes throughputs, control efficiency vendor information, MSDS, emissions, operations & maintenance, training, visible emission monitoring results, and all stack tests.

The monitoring and recordkeeping that is included in this section, in conjunction with the monitoring, recordkeeping and reporting requirements contained in the following MACT JJ section, meet permit content obligations at 9 VAC 5-80-110 E & K and are considered sufficient to assure compliance with the limits included in this permit.

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

**Condition 57** The facility is required to be operated in compliance with the requirements of 40 CFR Part 63 Subpart JJ, including future revisions.

### **Limitations**

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 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 58** Emission limitations 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.

**Condition 59** The source is required to show continuous compliance with the VHAP emissions limits.

### **Testing**

**Condition 60** Requires that any compliance testing be conducted using the test methods and procedures in Subpart JJ.

### **Submittals**

**Condition 61** Requires that all submittals regarding Subpart JJ be sent to both the EPA and DEQ.

### **Monitoring and Recordkeeping**

**Condition 62** 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.

**Condition 63** 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.

**Condition 64** 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 and recordkeeping that is included in this section are based on the MACT JJ – Wood Furniture Manufacturing Operations requirements. These monitoring and recordkeeping requirements meet permit content obligations at 9 VAC 5-80-110 E & K and are considered sufficient to assure compliance with the limits included in this permit.

### **Notification of Compliance**

**Condition 65** 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 66** The source is required to submit reports demonstrating continuous compliance and any exceedance of a baseline level.

### **Facility Wide Conditions**

**Condition 67** The source is required to be constructed so as to allow for emissions testing at any time using appropriate methods

**Condition 68** Upon request by the DEQ the source is required to conduct testing to show compliance with the limits contained in the permit.

## **STREAMLINED REQUIREMENTS**

**Condition 5** (Emissions Testing) of the May 23, 2008 minor NSR Permit and **Condition 13** (Emissions Testing) of the December 28, 2010 minor NSR Permit have been streamlined into one condition of the Title V Permit (T5-67).

**Condition 7** (Requirements by Reference) of the May 23, 2008 minor NSR Permit and **Condition 7** (Requirements by Reference) of the December 28, 2010 minor NSR Permit have been streamlined out of the permit because the applicable parts of 40 CFR 60, Subpart JJ have been included in the Title V Permit.

**Condition 10** (Stack Tests) and **Condition 11** (Visible Emissions Evaluations) of the May 23, 2008 minor NSR Permit have been streamlined into one condition in the Title V Permit (T5-68).

**Condition 12** (On Site Records) of the May 23, 2008 minor NSR Permit and **Condition 12** (On Site Records) of the December 28, 2010 minor NSR Permit have been streamlined into one condition in the Title V Permit (T5-56).

**Condition 13** (Reports for Facility or Control Equipment Malfunction) of the May 23, 2008

minor NSR Permit has been streamlined. Malfunction reporting is included in the General Condition section of the permit.

**Conditions 15** (T5-84), **17** (T5-96), **18** (T5-96) and **22** (T5-91) of the May 23, 2008 minor NSR permit have been streamlined. The requirements contained in these four conditions are included in the General Conditions section of the Title V permit.

**Conditions 16** (T5-107), **17** (T5-96), **20** (T5-84) and **22** (T5-101) of the December 28, 2010 minor NSR permit have been streamlined. The requirements contained in these four conditions are included in the General Conditions section of the Title V permit.

The corresponding Title V permit condition is included in parentheses above and the Title V permit conditions include the corresponding minor NSR permit condition in the citation.

**Conditions 14** and **16** of the May 23, 2008 minor NSR Permit and **Conditions 14** and **15** of the December 28, 2010 minor NSR Permit have not been included in the Title V Permit or streamlined because they are not longer applicable.

## **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**

#### **72-77 Permit Expiration**

These conditions refer 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”.

#### **84 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.

### **103-106 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 84 and General Conditions 103-106. For further explanation see the comments on General Condition 84 above.

### **111 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**

None

## **INAPPLICABLE REQUIREMENTS**

None identified in the application. 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.

## **COMPLIANCE PLAN**

None

## **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

No insignificant emission units are included in this permit.

### **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/proposed permit will be published in the *Martinsville Bulletin* on July 2, 2014. The public comment period ran from July 2, 2014 to August 1, 2014. No comments were received. The EPA review period ended on August 14, 2014. No comments were received.

Attachment: 2012 Annual Emissions Update