

**STATEMENT OF BASIS**

“Tru-Wood” Cabinets Company, LLC  
Ashland, Alabama  
304-0004

On November 5, 2020, Tru-Wood submitted additional information to revise their August 25, 2020, Major Source Operating Permit (MSOP) renewal application, which will incorporate Air Permit X009. Currently, this facility is operating with a modified MSOP issued on November 8, 2019, which incorporated Air Permit X008, and has an expiration date of February 13, 2021.

**OPERATIONS:**

Tru-Wood is a manufacturer of wooden kitchen and bathroom cabinets in two contiguous buildings (#1 and #2) and operates approximately 2,000 hours per year. This facility’s SIC and NAICS codes are #2434 and #337110, respectively. Tru-Wood is subject to *NESHAP - 40 CFR 63, Subpart JJ for Wood Furniture Manufacturing Operations*, and compliance assurance monitoring (CAM) for its particulate matter (PM) emissions from Buildings’ #1 and #2 baghouses.

Operations at this facility include woodworking, surface coating, and assembly (gluing). Wooden products entering the facility are chopped to length and then conveyed to a myriad of operations that include shaping, boring, drilling, sanding etc. Building #1 operates two baghouses (BH #1 and BH #3) and Building #2 operates a single baghouse (BH #2) for the removal of PM wooden

waste. Their wooden waste is collected and transported off-site for disposal to a local landfill.

**Building #1 MSOP:**

**Unit 001** – Shaped wooden components from the woodworking operations are conveyed to surface coating operations consisting of eleven manual spray booths and a curing oven. The coated components are then conveyed to assembly operations.

Since the previous MSOP issuance, Line #001 was modified to include several new spray booths. This Unit has incorporated Air Permit X009's equipment and booths.

**Unit 002** - The automated spraying system consists of sanders, three spray booths, infrared pre-heaters, flash zones, and three ovens. Steam heat for the ovens is supplied by a 2.80MMBtu/hr natural gas fired boiler. A spray booth used to coat large components is also located in this building and is considered part of this Unit.

**Unit 003** - Once dried, the coated components are conveyed to their assembly operations, which include several adhesive application stations. The assembled cabinets are then stored and shipped.

**Unit 004** – Wooden products entering the facility are chapped to length and then conveyed to a myriad of woodworking operations. The wooden wastes are

collected in a baghouse (BH #1) before being transported off-site. The shaped wooden components are then conveyed to their surface coating operations.

**Current Unit 008** – Wooden products entering the facility are chopped to length and then conveyed to a myriad of operations that include shaping, boring, drilling, sanding, etc. Emissions from the operations are conveyed to a baghouse (BH #3). Collected wooden waste is conveyed by screw auger to a trailer and transported off site. Shaped wooden components are then conveyed to surface coating operations. This Unit was the former Air Permit X008. When Tru-Wood's renewal MSOP is issued, this Unit will become **Unit 005**.

**Building #2 MSOP:**

**Current Unit 005** – This Unit is no longer operative.

**Current Unit 006** – This Unit is no longer operative.

**Current Unit 007** – Wooden products entering the facility are chopped to length and then conveyed to a myriad of operations that include shaping, boring, drilling, sanding, etc. Emissions from the operation are conveyed to a baghouse (BH #2). Collected wood waste is conveyed by screw auger to a trailer and transported off site. Shaped wood components are then conveyed to surface coating operations. When Tur-Wood's renewal MSOP is issued, this Unit will become **Unit 006**.

**EMISSIONS:**

**VOC/HAP**

Volatile organic compounds (VOC) from the paint, thinners, and cleanup solvents, etc., are regulated criteria air contaminants emitted to the atmosphere by the surface coating operations. These operations are also a source of hazardous air pollutants (HAP), as listed in Appendix G of the ADEM Air Regulations.

The facility's potential VOC emissions exceed the threshold of 100 tons per year. Therefore, Tru-Wood is considered a major source for Title V. Tru-Wood has requested to maintain their current Title V's permitted VOC facility-wide emissions limit of 235 tons per year. Therefore, this facility's VOC emissions shall not exceed the PSD threshold limit of 250 tons per year.

The surface coating lines and adhesion operations are subject to *NESHAP – 40 CFR Part 63, Subpart (JJ) for the Manufacture of Wood Furniture*, as a new source. This regulation requires Tru-Wood to limit emissions of certain HAPs in their coatings and adhesives, and to implement certain work practices and training for operators.

The potential HAP emissions from the surface coating operations are also emitted in such quantities as to exceed the Title III and Title V major source thresholds. The HAP emission thresholds for a major source are 10 tons for a single HAP, and 25 tons for any combination of HAPs.

**Waste Removal:**

Tru-Wood is a large generator of hazardous waste and can reclaim approximately 75% of solvent from their coatings and belt cleaners used in the

stain room. The stain room waste is recycled as clean up solvent and the remainder is disposed of as still bottoms.

Tru-Wood also utilizes catalyst paint in their surfacing coating operations. The ratio of catalyst to paint usage is reported at 32 ounces of catalyst to 4 gallon of paint. That is 128 oz (1 gallon) of catalyst to 16 gallons of paint; therefore, the catalyst to paint proportion is a 1 to 16 gallon mixture. This catalyst/paint mixture has a useful life span of 3 to 4 hours before it becomes unusable for surface coating. Their spent paint's solvent is currently not being reclaimed like the coatings and belt cleaners are. Tru Wood's spent catalyst paint shall be analyzed by an approved laboratory to determine the VOC effluent content in order to account for their monthly VOC reduction. Tru-Wood is required to utilize EPA's Test Method 24 to determine the VOC effluent from their catalyst paint waste annually. At least three samples of the catalyst paint waste shall be tested annually. The most conservative (lowest) VOC effluent content shall be used to determine the amount of monthly reduction waste allowed. A period of 12 months will be allowed before the next testing is performed. The EPA's Test Method 24 shall utilize ASTM methods: ASTM-D1475 for Density, ASTM-D2369 for Nonvolatile Residue and ASTM-D4017 for Water Content. ADEM will accept the most conservative (lowest) VOC effluent content from EPA Test Method 24 of the catalyst paint waste.

**Compliance Assurance Monitoring (CAM):**

Tru-Wood is subject to “Small CAM” since the baghouses have uncontrolled emissions greater than 100 tons, but the controlled emissions are less than 100 tons. CAM applies to pollutant specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation.

Baghouses #1, #2 and #3 are subject to the CAM rule. Tru-Wood’s particulate matter control device is subject to the CAM applicability requirements 40 CFR 64.7-.10(a) through (c).

Tru-Wood is a Class 1 County and allowable PM emissions are 55.5 tpy, using  $E = 3.59P^{0.62}$ . Particulate Matter emissions are regulated under ADEM Rules 335-3-4.04(1), 335-3-4-.01(1) and 335-3-4-.02.

Tru-Wood’s baghouses are in compliance with the emission standard requirements and the pre-controlled PTE exceeds the Title V major source threshold of 100 tpy. Building #1 and Building #2 PM emissions are listed below.

**Small CAM Emissions**

	PM uncontrolled	PM potential	PM allowable
Building #1, BHs #1 & #3	<b>438 tpy</b>	15.02 tpy	27.75 tpy
Building #2, BH #2	<b>219 tpy</b>	7.51 tpy	27.75 tpy

No other criteria pollutants are emitted in sufficient quantities, actually or potentially, to exceed the major source threshold of 100 tons per year.

**REQUIREMENT:**

**Monitoring of Emissions:**

Tru-Wood will maintain records of monthly coating usage and coating analysis to show compliance with both their Synthetic Minor PSD limit and their Wood Furniture MACT requirements. The monitoring of PM emissions under the CAM program shall comply with 40 CFR §§64.3-7.

Tru-Wood Cabinets has two natural gas-fired drying ovens (7.0 MMBtu/hr and 2.80 MMBtu/hr) for the surface coating lines. Their current existing monitoring is sufficient to demonstrate compliance and no changes are necessary.

**Permitting Fees:**

Title V major sources are subject to operating permit fees which charge the facility a yearly amount based on the actual emission rate of pollutants for the previous year.

**Affected States Notification:**

Notification of the proposal of this major source operating permit will be sent to all affected states bordering Alabama.

**RECOMMENDATIONS:**

Based on the above analysis, I recommend renewing Tru Wood's MSOP with the incorporation of Air Permit X009, pending the public comment period and EPA review. Tru-Wood will continue to comply with *NESHAP – 40 CFR 63 Subpart JJ MACT* standard requirements.

The following is a list of the facility's units for the proposed Title V – Major Source Operating Permit:

<b>Permit Unit No.</b>	<b>Description of Unit</b>
001	Building #1 Wooden Furniture Surface Coating Operations
002	Building #1 Cabinets Production Automatic Spray Systems
003	Building #1 Adhesion Application and Assembly
004	Building #1 Woodworking Operations with One Baghouses (BH #1)
005	Building #1 Woodworking Operations with Cyclone and Baghouse (BH #3)
006	Building #2 Woodworking Operations with One Baghouse (BH #2)

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Clarence Fairer III  
Chemical Branch  
Air Division

December 17, 2020  
Date