

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-08300025-2023**
Application Received: **January 9, 2023**
Plant Identification Number: **03-54-083-00025**
Permittee: **AHF, LLC**
Facility Name: **Beverly Mill**
Mailing Address: **P. O. Box 160, Beverly, WV 26253**

Physical Location: Beverly, Randolph County, West Virginia
UTM Coordinates: 597.41 km Easting • 4,296.88 km Northing • Zone 17
Directions: From Charleston take I-79 North to exit 99, proceed east on US Route 33 to Elkins. From Elkins take US Route 250 South. The facility is located approximately 1.6 miles south of Beverly in Randolph County.

Facility Description

The Beverly facility manufactures finished and unfinished hardwood flooring under Standard Industrial Classification (SIC) code 2426. Green lumber is purchased and stacked in the Mill Yard to facilitate air drying of the lumber. The lumber is then further dried in the steam heated pre-dryer and/or one of 38 lumber kilns. Kiln-dried lumber is transferred by one of two lumber tilts to the mill rough end saws. The rough end saws cut the lumber into strips for transfer to one of six lines of knot saws, side matchers, and end matchers. The unfinished wood flooring is graded, stacked and either stored or transferred to one of two finishing lines. Finished hardwood flooring is graded and packaged for shipment to mill customers.

The facility currently operates two wood fuel-fired boilers (Emission Unit IDs-001-01 and 001-02) (each 48.8 MMBTU/hr) and a natural gas fired boiler (Emission Unit ID-001-04) (33.5 MMBTU/hr) to provide steam for the drying kilns, the stain curing ovens, and the building heating system. A small (22 kW/29.5 hp) natural gas-fired emergency generator (Emission Unit ID-005-01) provides backup power supply for emergency lighting and other critical plant operations. Diesel Engine Emergency Fire Pump (Emission Unit ID-005-02) with design capacity of 86 hp is also a part of the facility.

Boilers: Each of the wood-fired boilers (Emission Unit IDs-001-01 & 001-02) is equipped with 7,600 square feet of heat surface for generating steam from the combustion of wood waste. Sawdust and wood waste from the mill operations are collected in silos and burned as fuel. These boilers are designed to generate a maximum of 37,110 pounds of steam by burning a maximum of 6,445 pounds per hour of wood waste fuel. An electrostatic precipitator controls particulate matter emissions from the two wood fired boilers. The natural gas fired boiler (Emission Unit ID-001-04) is used as backup for periods of shutdown of the wood fired boilers.

Flooring Mill: The flooring mill consists of six (6) lines where cutting, planing, and edging operations are performed to convert kiln-dried hardwood lumber into unfinished hardwood flooring. The kiln-dried lumber is fed to the rough end for preliminary sorting, cutting, and sizing and then to one of the six processing lines. The Flooring Mill also includes several hogs, three hogged fuel silos, and two truck loadouts for hogged fuel. The flooring mill is designed to convert 163,800,000 board-feet of kiln-dried lumber into 109,200,000 square feet of unfinished hardwood flooring per year. Particulate emissions are controlled by seven (7) baghouses (No.'s 2 through 8).

Finishing Lines: Unfinished hardwood flooring is supplied to two (2) Finishing Lines for sanding, staining, sealing, application of topcoat, and packaging for shipment. Each line contains a stain rollcoater unit with stain applicators and a two-zone, natural gas-fired high velocity stain cure oven; a sealer rollcoater unit with hooded roll applicators and UV cure oven; a hooded topcoat rollcoater and UV cure oven; and a two-stage hooded topcoat rollcoater. Each finishing line is designed to produce 59,600,000 square feet of finished hardwood flooring per year. Particulate emissions from the finishing lines are controlled by Baghouse Nos. 1 and 9.

Yard Operations: Yard operations consist of receiving green lumber to the pre-dryer and/or lumber kilns, and transfer of dried lumber from the lumber kilns to dry storage. The mill operates one steam-heated pre-dryer and 38 steam-heated lumber kilns to dry green lumber for further processing in the mill and finishing lines. The pre-dryer is designed for 1,600,000 board-feet per charge (charge cycle is approximately 35 days). Each of the 38 kilns is designed for 102,000 board-feet per charge (charge cycle normally averages 15 days). Rolling stock transport of lumber results in the generation of fugitive particulate matter emissions.

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|--|----------------------------|------------------------------|
| Regulated Pollutants | Potential Emissions | 2022 Actual Emissions |
| Carbon Monoxide (CO) | 245.86 | 90.54 |
| Nitrogen Oxides (NO _x) | 115.24 | 68.65 |
| Lead (Pb) | 0.02 | 0.01 |
| Particulate Matter (PM _{2.5}) | 16.07 | 2.43 |
| Particulate Matter (PM ₁₀) | 34.76 | 6.11 |
| Total Particulate Matter (TSP) | 154.60 | 8.07 |
| Sulfur Dioxide (SO ₂) | 95.15 | 41.92 |
| Volatile Organic Compounds (VOC) | 249.98 | 73.74 |

PM₁₀ is a component of TSP.

| Hazardous Air Pollutants | Potential Emissions | 2022 Actual Emissions |
|---------------------------------|--|------------------------------|
| Acrolein | 1.75 | 1.05 |
| Benzene | 1.80 | 1.10 |
| Hydrogen Chloride (HCl) | 8.15 | 4.99 |
| Formaldehyde | 1.88 | 0.12 |
| Other HAPs | 10.82 tpy (< 9.4 tpy of a single HAP Permit Limit) | 1.94 |
| Total HAPs | 24.4 (Permit Limit) | 9.2 |

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 245.86 tpy of CO; 115.24 tpy of NO_x; and 249.98 tpy of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, AHF, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

| | | |
|--------------------|---------|--|
| Federal and State: | 45CSR2 | Particulate matter from Fuel Burning Units. |
| | 45CSR6 | Open burning prohibited. |
| | 45CSR7 | Particulate matter from manufacturing source(s). |
| | 45CSR10 | SO ₂ from Fuel Buring Units. |

| | | |
|-------------|----------------------------------|---|
| | 45CSR11 | Standby plans for emergency episodes. |
| | 45CSR13 | Construction permit requirements. |
| | 45CSR16 | Emission standards for New Stationary Sources pursuant to 40 C.F.R. Part 60 |
| | WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting. |
| | 45CSR30 | Operating permit requirement. |
| | 45CSR 34 | Emission Standards for Hazardous Air Pollutants Pursuant to 40 C.F.R. Part 63 |
| | 40 C.F.R. Part 60, Subpart Dc | Steam generating units NSPS |
| | 40 C.F.R. 60, Subpart IIII | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. |
| | 40 C.F.R. Part 61 | Asbestos inspection and removal |
| | 40 C.F.R. Part 60, Subpart JJJJ | NSPS for Stationary Spark Ignition Internal Combustion Engines |
| | 40 C.F.R. Part 63, Subpart JJJJJ | National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources |
| | 40 C.F.R. 63 Subpart ZZZZ | RICE MACT |
| | 40 C.F.R. Part 64 | Compliance Assurance Monitoring Plan |
| | 40 C.F.R. Part 82, Subpart F | Ozone depleting substances |
| State Only: | 45CSR4 | No objectionable odors. |

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

| Permit or Consent Order Number | Date of Issuance | Permit Determinations or Amendments That Affect the Permit (<i>if any</i>) |
|--------------------------------|------------------|--|
| R13-1147Z | 3/19/2020 | |

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

This is the fourth renewal of the Title V permit. The following changes to the Title V permit were made as part of this renewal:

- ❖ Title V Boilerplate changes:

- **Condition 2.1.3** - The section of Rule 30 that defines Secretary changed in a previous version of Rule 30 and we failed to update this condition. Also, in the recently revised Rule 30, the word "such" was removed.
 - **Condition 2.11.4.** – The reference notation was changed from 45CSR§30-2.39 to 45CSR§30-2.40 because this definition was renumbered in 45CSR30.
 - **Condition 2.22.1.** - The reference notation was changed to delete 45CSR38 because it has been repealed.
 - **Condition 3.5.3.** - The EPA contact information and address were updated.
 - **Conditions 2.17, 3.5.7, and 3.5.8.a.1** - The section for Emergency was removed and replaced with Reserved in condition 2.17. Section 5.7 of Rule 30 which pertained to emergencies and affirmative defense was removed in the revised Rule 30.
 - **Condition 3.5.4** - Under the revised Rule 30, certified emissions statements are no longer required to be submitted. Facilities have been submitting their emissions data in SLEIS and paying fees based on their SLEIS submittal, so this requirement was no longer needed.
 - **Condition 3.5.8.a.2** - Under the revised Rule 30, "telefax" was replaced with "email".
- ❖ Conditions 7.1.5, 7.4.1, 8.1.5, and 8.1.10 were updated because of changes to the regulations 40 CFR 60 Subparts III and JJJ.
- ❖ The Emission Units Table and conditions 6.2.1 and 6.2.2 were updated as a result of PD23-030.
- AHF, LLC submitted a permit determination request (PD23-030) on August 7, 2023 for the following proposed changes at the facility:
 - Change the two existing rail sanders to panel sanders in order to allow for better product changeouts. The sanders will exhaust to the existing baghouses. Therefore, potential emissions are not expected to change as a result of this change.
 - Install additional duct work downstream of the sanders which exhausts through a new cyclone and new baghouse. Note that the new cyclone is not an exhaust point as the exhaust stream passes through the baghouse. Potential emissions from the additional control device, Baghouse No. 9, are based on maximum air flow rate and outlet grain loading data provided from the manufacturer. Particulate matter (PM) will be the only pollutant with a potential emissions increase. Baghouse No. 9 will be part of the Finishing Line system (002) and will be subject to the same applicable requirements as the other baghouses in the system.
 - On, August 24, 2023, the DAQ determined that the changes proposed did not require a permit.
 - As a result of the above changes, Baghouse No. 9 and Cyclone No. 8 were added to the Emission Units Table of the Title V Permit.
 - The monitoring and recordkeeping requirements for visible emissions and pressure drops across the filters that are already in place for the other units were applied to Baghouse No. 9. Therefore, conditions 6.2.1 and 6.2.2 were updated to add Baghouse No. 9.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. 40 CFR 60 Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. The two (2) wood-fired boilers located at AHF, LLC's Beverly Mill are not subject to these requirements because the boilers were purchased prior to the date the rule was proposed.

- b. 40 CFR 63 Subpart QQQQ – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products*. The facility demonstrated that by the compliance date of May 15, 2006, they were a minor source of HAPs. With the establishment of HAP emission limits below major source thresholds, the facility is not subject to Subpart QQQQ.
- c. 40 CFR 64 – Since the last renewal, there have not been any changes in equipment at this facility that affected 40 CFR 64 Compliance Assurance Monitoring (CAM) applicability. The CAM requirements contained in Title V Sections 4.0, 5.0, and 6.0 remain unchanged.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: October 6, 2023
Ending Date: November 6, 2023

Point of Contact

All written comments should be addressed to the following individual and office:

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 41283 • Fax: 304/926-0478
Beena.j.modi@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

None