

**Statement of Basis
Weyerhaeuser NR Company
Castleberry, Conecuh County, Alabama
Facility/Permit No. 103-0012**

This draft Title V Major Source Operating Permit (MSOP) renewal is issued under the provisions of ADEM Admin. Code chap. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The current MSOP was issued on January 23, 2016, and will expire on January 22, 2021. This is the fourth renewal of the facility's Title V MSOP.

Facility Operations

Weyerhaeuser operates a laminated veneer lumber facility in Castleberry, Alabama. The significant sources of air pollutants at this facility are a 16 MMBtu/hr gas-fired thermal oil heater, a curing oven, four laminating lumber machines with hot oil presses, an I-Machine, a web process, a wood hog, a relay transfer system to a dual truck loadout, an LVL billet saw, a trim saw, Microllam products line saws, miscellaneous coating operations which include the application of edge sealers in spray booths, Dyno Overlay application, ink stamping, resin storage tanks, and a 208 Hp diesel-fired emergency water pump.

Changes to the facility since the last reissuance of the MSOP include the following:

May 2017 – The facility requested a minor modification to increase the dyno overlay usage from 860,547 lb/yr to 1,025,000 lb/yr. Additionally the facility requested edge seal usage be increased from 13,000 gal/yr to 21,900 gal/yr.

April 2018 – Weyerhaeuser applied to perform maintenance on the LVL presses. After the maintenance, the capacity of LVL increased to 300 CF/hr. The emissions increases were determined to be below PSD thresholds and a PSD review was not required. The project was handled as an off-permit change.

January 2020 – Weyerhaeuser added a spray booth to apply sealant to all sides of the Microlam product. The project was handled as an off-permit change.

Title V

Based on the Title V permit application, this facility is a major source for particulate matter, volatile organic compounds, total HAP, and methanol (a HAP).

PSD

This facility is located in an attainment area for all criteria pollutants, and the facility operations are not one of the listed major source categories. Therefore, the applicable major source emissions threshold would be 250 TPY. The facility is a synthetic minor source for PSD for particulate matter. The following processes have synthetic minor limits which were established when the processes were constructed and/or modified:

- **Nos. 1, 2, 3 and 4 Laminating Lumber Machines with Hot Oil Presses** each have a PM emission limit of 5.25 lb/hr.
- **I-Machine with Baghouse** has a PM emission limit of 1.38 lb/hr.
- **Web Process with Baghouse** has a PM emission limit of 1.47 lb/hr.
- **Press and Wood Hog with Baghouse** has a PM emission limit of 1.88 lb/hr.
- **Relay Transfer System to a Dual Truck Loadout Bin with Two Cyclones and a Baghouse** has a PM emission limit of 0.18 lb/hr.
- **LVL Billet Saw, Trim Saw, and Microllam Products Line Saws with Cyclone and Baghouse** has a PM emission limit of 2.2 lb/hr.

MACT

Boiler MACT

The gas-fired thermal oil heater is subject to the applicable requirements of 40 CFR 63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* and the applicable requirements of 40 CFR 63, Subpart A, General Provisions as provided in Table 10 to Subpart DDDDD. The facility is required to conduct tune-ups at least annually as specified in 40 CFR §63.7540(a)(10), 40 CFR §63.7515(d) and Table 3 to 40 CFR 63, Subpart DDDDD. The facility submitted an Initial Notification on March 25, 2013.

PCWP MACT

All of the significant sources at this facility (except the thermal oil heater) are considered affected sources under the *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products*, 40 CFR 63, Subpart DDDD [adopted by reference at ADEM Admin. Code r. 335-3-11-.06(81)], the “PCWP MACT”.

Miscellaneous Coating Operations

Dyno Overlay

Dyno Overlay is not utilized on all products and is only applied upon customer request. As a beam feeds into a press, a roll of Dyno Overlay (similar to “cling” wrap) unravels, feeding a sheet of overlay onto the top and bottom of the beam. Emissions from Dyno Overlay are vented through the press vents, such that it is actually part of the pressing process. This process is an affected source under Subpart DDDD as it is classified as a miscellaneous coating operation. However, it is not considered a Group 1 miscellaneous coating operation. Therefore, there are no compliance or work practice standards associated with this process.

Edge Sealant and Ink Stamping

During the finishing process, edge sealant is applied to headers in the Microllam Coating Spray Booth. Lumber is also stamped with a non-HAP

ink in a separate operation at two stamping stations. These processes are affected sources under Subpart DDDD as they would be classified as Group 1 miscellaneous coating operations. Subpart DDDD requires that Group 1 miscellaneous coating operations utilize non-HAP coatings as defined in § 63.2292 (*a coating with HAP contents below 0.1 percent by mass for Occupational Safety and Health Administration-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and below 1.0 percent by mass for other HAP compounds*) and keep records showing that the facility is using non-HAP coatings. Provisions would be included in the MSOP for the edge sealant application and ink stamping processes that would contain these requirements.

Curing Oven, Pneumatic Transfer System, and Resin Tanks

The curing oven, pneumatic transfer systems, and resin tanks are affected sources under Subpart DDDD; however, these processes are not subject to any compliance or work practice standards.

Laminated Lumber Machines

Although the laminated lumber machines are affected sources under the PCWP MACT, there are no compliance or work practice standards for these units. However, Laminated Lumber Machines Nos. 3 and 4 are subject to ADEM Admin. Code r. 335-3-14-.06(3)(c), “Requirements for Control Technology [Determinations for Major Sources in Accordance with Clean Air Act Section 112 (g)]”, as there were no applicable source specific MACT for these type units when they were installed. The case-by-case MACT for these processes was determined to be that the methanol content of the formaldehyde resin shall not exceed 0.375%, as certified by the supplier at the time of delivery. Weyerhaeuser requested in the application that the case-by-case MACT be rescinded as the facility has since become subject to the PCWP MACT. However, it was determined that the case-by-case MACT should remain in effect as the requirements of the PCWP MACT would be less stringent.

RICE MACT

This facility has a 208 Hp diesel-fired water pump that is utilized during emergencies. The water pump is subject to 40 CFR 63, Subpart ZZZZ, the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* (the “RICE MACT”). As an existing emergency compression ignition (CI) stationary RICE <500 Hp located at a major source of HAP emissions, this engine is subject to work practice requirements as outlined in Table 2c to Subpart ZZZZ.

NSPS

The thermal oil heater is subject to NSPS, Subpart Dc, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, as it was installed after 1989. Subpart Dc requires that the facility maintain records of monthly fuel usage in the heater.

The resin tanks are not subject to NSPS Subpart Kb, *Standards of Performance for Volatile Organic Liquid Vessels*, since the maximum vapor pressure of the resin is less than 15 kPa. The water pump engine is not subject to Subpart III, *Standards of Performance for Stationary Compression Ignition Combustion Engines*, as it was installed prior to 2006.

State Regulations

Particulate Emission Standard

The oil heater is subject to the particulate emission standard ($E = 1.38H^{0.44}$) for fuel burning equipment as outlined in ADEM Admin. Code r. 335-3-4-.03(1). The particulate emission standards for the remaining processes are based on the process weights using the appropriate formula $3.59(P)^{0.62}$ or $17.31(P)^{0.16}$ as outlined in ADEM Admin. Code r. 335-3-4-.04(1).

Visible Emission Standard

All processes at this facility are subject to the visible emission standard as outlined in ADEM Admin. Code r. 335-3-4-.01. The VE standard stipulates that the Permittee shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period from any process. Also, at no time shall the Permittee discharge a 6-minute average opacity of particulate emissions greater than 40% from any process.

Control of Organic Emissions

Weyerhaeuser utilizes six vertical, bottom-fill, fixed-roof tanks to store resin utilized in the manufacturing of LVL. The resin tanks are contained within a controlled environment which maintains an ambient temperature of 80 °F. The application indicates that the true vapor pressure of the resin at 80 °F is 1.26 psia. Therefore, the tanks are not subject to ADEM Code r. 335-3-6-.03(1), *Loading and Storage of VOC*, as the regulation applies to VOC with a true vapor pressure greater than or equal to 1.5 psia under storage conditions.

Sulfur Compound Emissions Standard

The ADEM Code r. 335-3-5-.01(b) requires that fuel burning installations not emit sulfur dioxide in excess of 4.0 lb/MMBtu heat input. The only process at this facility subject to this standard is the oil heater. However since the oil heater utilizes natural gas for fuel, the expected SO₂ emissions would be expected to be much less than the applicable standard.

Emission Testing and Monitoring

Thermal Oil Heater and Curing Oven

CAM

The potential emissions of all criteria air pollutants from the thermal oil heater and curing oven are less than the applicable major source threshold. Also, the units have no pollution control devices. Therefore these units are not subject to the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM).

Periodic Monitoring and Testing

The thermal oil heater is subject to the SIP particulate limitation for fuel burning equipment and to the SIP SO₂ allowable emission rate of 4.0 lb/MMBtu of heat input. The curing oven is subject to the SIP particulate limitation for Process Industries-General. Natural gas is the only fuel utilized in these processes. Due to the minimal expected PM and SO₂ emissions from the combustion of natural gas, no emission testing or monitoring for PM and SO₂ is considered necessary.

Pneumatic Systems

CAM and Periodic Monitoring

Particulate emissions from these processes are controlled by cyclones and baghouses. The units also have synthetic minor limitations under PSD as noted above. The precontrolled particulate emissions from the I-Machine, Web Process, Press and Residual Hog Pneumatic System, LVL Billet Saw, Trim Saw, and Microllam Products Line Saws are greater than the major source threshold. Also, the cyclones and baghouses on these units are not inherent process equipment and are solely designed to control particulate emissions. Therefore these units are subject to CAM. However, the post-control particulate emissions from these units are less than the major source threshold. Therefore, the facility must collect monitoring data at least once per 24-hour period as outlined in 40 CFR 64.3(b)(4)(iii). The Relay Transfer to Dual Truck Loadout Bins is not subject to CAM as its potential emissions of particulate matter are less than the applicable threshold. However, the emission monitoring for all of these units would be identical and include the following:

- When operating, the baghouse shall be visually observed a minimum of once a day for visible emissions and a normal differential pressure drop of +0.15 - +5.0 inches of water.
- Properly maintained devices shall be utilized to monitor the pressure differential across the baghouse. The devices shall be replaced annually or calibrated in accordance with manufacturer's recommendations and necessary parts maintained for routine repair.
- Whenever visible emissions are observed or the pressure differential is outside the normal operating range, the facility shall initiate action within three (3) hours to correct the problem and return the system to its normal operating parameters.
- Each cyclone and baghouse shall be inspected for proper operation and cleaned at least annually and whenever visible emissions are observed or the pressure differential across the baghouse is outside the normal operating range.

- Records, including dates and times, of all visible emission observations, pressure drop readings, inspections and cleaning, and corrective actions taken shall be maintained in a logbook and made available for inspection for five (5) years from the date of generation.
- The semiannual report required by General Proviso 21 shall include:
 - (1) A statement as to whether all observations for visible emissions were completed as required during the reporting period, and if not, the date(s) and reason(s) why the monitoring was not performed;
 - (2) A statement as to whether the annual inspection of the cyclone and baghouse was accomplished during the reporting period, and if so, the date and results of the inspection;
 - (3) The date(s), time, nature, and results of any corrective action taken when (1) any visible emissions were observed from the baghouse or (2) a differential pressure across the baghouse was outside of the normal operating range, or (3) an inspection of the cyclone or baghouse indicated that cleaning or emissions-related maintenance was needed.

Testing

Emission testing for PM will not be required at this time for these processes as they would be expected to comply with the emission limits based on control efficiencies and emission factors.

Nos. 1, 2, 3 and 4 Laminating Lumber Machines with Hot Oil Presses

CAM and Periodic Monitoring

Each of these units is subject to a synthetic minor limit of 5.25 lb/hr of particulate matter. CAM would not apply to these units as they do not use control devices to control any emissions. Visible emissions from the processes were considered for periodic monitoring for PM. However, this technique would not be feasible since the particulate matter would be mixed with the VOC emissions from the processes. There is no other practical method to monitor the particulate emissions.

Presses 3 and 4 are also subject to a case-by-case MACT determination which limits the methanol content of the formaldehyde resin to 0.375%. Compliance with this emission standard would be certified by the supplier at the time of delivery.

Testing

No testing for particulate matter would be required as the expected particulate emissions from the laminated lumber machines would be less than the permitted limits. EPA Method 311, *HAPS in Paints & Coatings*, or alternate testing

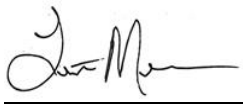
methods approved by the Air Division, would be utilized to determine the methanol content of the resin should verification ever be required.

Public Notice

The renewal of this Title V MSOP would require a 30-day public comment period and a 45-day EPA review period.

Recommendation

I recommend that Weyerhaeuser's Title V MSOP be renewed with the requirements noted above pending the resolution of any comments received during the 30-day public comment period and the EPA 45-day review.



Lester Meredith
Chemical Branch
Air Division

July 22, 2020
Date

VLM/vlm