Statement of Basis
Louisiana-Pacific Corporation
Hanceville, Cullman County, Alabama
Facility/Permit No. 702-0027

This proposed Title V Major Source Operating Permit (MSOP) renewal has been developed in accordance with 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 Hanceville OSB mill was constructed in the early 1990's as a major source under PSD, with preconstruction PSD permits issued in 1991. Additionally, the facility underwent PSD in 1994 and 1997 for various modifications and BACT limit changes. In 2005, LP proposed modifications to the wafer drying process and revised emission limits so that the entire facility would become a synthetic minor source under PSD with potential emissions of each criteria pollutant at less than 250 TPY. With the issuance of Air Permit No. X028 for modifications to the dry fuel system on November 26, 2014, the facility again became a major source (VOC) under the PSD regulations.

The initial application for this renewal was received on March 19, 2019. A revised Title V application was received on September 23, 2024, and an addendum was received on April 28, 2026. The initial MSOP was issued on November 9, 1999, and this is the fourth renewal. The current MSOP was issued on October 1, 2015, became effective on October 1, 2015, was modified on January 22, 2018, and has an expiration date of November 8, 2019. The permit was administratively extended. The facility is located in Cullman County, which is currently listed as attainment/unclassifiable with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Louisiana-Pacific Corporation necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found at https://echo.epa.gov/ (Search using Facility ID AL0000000104300027).

Permit History

Since the last renewal, LP underwent extensive successive modifications and Air Permitting actions that resulted in the delayed renewal of the MSOP. These actions included:

- **X029**; July 14, 2017 - Replacement of the two RTOs (RTO1/RTO2) of the wood wafer drying system;
- **X030**; January 8, 2018 – Modification of the dry fuel system;
- **X031**; October 31, 2019 – Sequential Replacement of the five wood wafer rotary dryers;
- **X032**; April 19, 2023 – Replacement of the emergency generator diesel engine;
- **X033**; November 13, 2024 – Replacement of the emergency fire pump diesel engine;
- **X034**; June 11, 2025 – Replacement of the board press system RCO.

The following table indicates the origins of the current emission limitations:

Issuance No./ Permit No.	Issuance Date	Limit(s) Established	Limit(s) Basis/ Reasoning
(Trim Saws - Unit 001) Air Permit No. X009	October 16, 1997	• PM - 0.94 lb/hr and/or 0.005 gr/dscf • VOC – 1.83 lb/hr and/or 44 ppm as carbon	PSD-BACT
(Forming Sheet Reject System - Unit 003) Air Permit No. X007	October 16, 1997	• PM – 1.25 lb/hr and/or 0.005 gr/dscf • VOC – 1.49 lb/hr and/or 27 ppm as carbon	PSD-BACT
(Fuel Grinder - Unit 004) Air Permit No. X011	October 16, 1997	• PM – 0.58 lb/hr and/or 0.005 gr/dscf • VOC – 3.45 lb/hr and/or 136 ppm as carbon	PSD-BACT
(Three Material Blenders - Unit 005) Air Permit No. X019	December 23, 2004	• PM – 0.82 lb/hr and/or 0.005 gr/dscf • VOC – 10.0 lb/hr and/or 572 ppm as carbon	PSD-SMS
(Nos. 1-5 Rotary Drum Wood Wafer Dryers - Unit 009) Air Permit No. X020	June 16, 2006	• CO – 50.90 lb/hr • VOC – 17.84 lb/hr C or 21.76 lb/hr propane	PSD-SMS
(Nos. 1-5 Rotary Drum Wood Wafer Dryers - Unit 009) Air Permit No. X020 (reissuance)	April 10, 2008	• VOC/HAP – minimum 90% DRE/reduction	PSD-SMS; 40 CFR Part 63, Subpart DDDD (PCWP MACT)
(Nos. 1-5 Rotary Drum Wood Wafer Dryers - Unit 009) Air Permit No. X024	July 23, 2012	• NOx – 0.59 lb/MSF 3/8"; $\leq$ 243.1 (009/010)	PSD-SMS
(Nos. 1-5 Rotary Drum Wood Wafer Dryers - Unit 009) Air Permit No. X029	July 14, 2017	• PM – 19.28 lb/hr and/or 0.015 gr/dscf	PSD-SMS
(Board Press System - Unit 010) Air Permit No. X008	October 16, 1997	• PM – 9.86 lb/hr and/or 0.010 gr/dscf	PSD-BACT
(Board Press System - Unit 010) Air Permit No. X021	June 16, 2006	• CO – 4.58 lb/hr • VOC – 4.95 lb/hr C or 6.00 lb/hr propane	PSD-SMS

(Board Press System - Unit 010) Air Permit No. X021	April 10, 2008	• NOx – 0.43 lb/MSF 3/8" (TN350/450); 0.25 lb/MSF 3/8" (any other); ≤ 243.1 (009/010) • VOC/HAP – minimum 90% DRE/reduction	PSD-SMS; 40 CFR Part 63, Subpart DDDD (PCWP MACT)
(Thermal Oil Heater - Unit 011) Air Permit No. X014 (permitted with the rotary dryer system). It first appeared as a discreet unit in the initial Title V MSOP, issued on November 9, 1999.	February 8, 1994	• PM – 0.10 lb/MMBtu input • SO_2 – 4.0 lb/MMBtu input	NSPS, Subpart Dc; ADEM Admin. Code r. 335-3-5-.01
(Edge Sealing and Stenciling Operations - Unit 012) Never issued an Air Permit. First appeared in the 1st Title V MSOP renewal.	September 7, 2006	• Use of non-HAP coatings	40 CFR Part 63, Subpart DDDD (PCWP MACT)
(Resin Storage Tanks - Unit 013) Never issued an Air Permit. First appeared in the initial Title V MSOP.	November 9, 1999	• None	40 CFR Part 63, Subpart DDDD (PCWP MACT)
(Techshield® Line - Unit 014) Air Permit No. X022	March 5, 2009	• Compliant Materials Option	40 CFR Part 63, Subpart QQQQ (Surface Coating of Wood Building Products MACT)
(Board Sander/T&G Machine - Unit 017) Air Permit No. X026	November 21, 2012	• TSP/PM_{10} – 1.93 lb/hr • VOC – 2.86 lb/hr C or 3.23 lb/hr pinene	PSD-SMS
(Raw Fuel Bin Overflow System - Unit 018) Air Permit No. X027	March 14, 2013	• TSP/PM_{10} – 0.62 lb/hr	PSD-SMS
(Dry Fuel System; Dry Fuel Bin Overflow System - Unit 019) Air Permit No. X030	January 8, 2018	• TSP/PM_{10} - State allowable based on process weight	SIP
(Emergency Generator Engine - Unit 020) Air Permit No. X032	April 19, 2023	• NOx + NMHC – 6.4 g/kWm-hr • CO – 3.5 g/kWm-hr • PM – 0.20 g/kWm-hr • 100 hr/yr operating limit	NSPS, Subpart IIII PSD-SMS

(Emergency Fire Pump Engine - Unit 021) Air Permit No. X033	November 13, 2024	• NOx + NMHC – 4.0 g/kWm-hr • CO – 3.5 g/kWm-hr • PM – 0.20 g/kWm-hr	NSPS, Subpart IIII

Facility Operations

Louisiana-Pacific Corporation's Hanceville OSB mill is an existing facility that produces oriented strand board (OSB) from southern yellow pine logs. The significant sources of air pollutants include several processes with pneumatic wood residuals transfer systems with baghouses (Units 001, 003, 004, 005, 017, 018, and 019); five rotary wood wafer dryers with two wet electrostatic precipitators (WESPs) and a regenerative thermal oxidizer (Dryer RTO) (Unit 009); a board press system and RCO/RTO (Unit 010); a 34 MMBtu/hr thermal oil heater (Unit 011); edge sealing and stenciling operations (Unit 012); six resin storage tanks (Unit 013), the Techshield® surface coating line (Unit 014), and two emergency diesel engines (Units 020/021). Insignificant emission sources at this facility include office heaters, laboratory testing, welding units, hauling and disposal activities, debarking and waferizing, water tanks, propane storage, rotary dryer bypass stacks, two diesel tanks, one gasoline tank and dispensing, bark burner startup/shutdown and idle mode episodes, knife sharpening fluid use, bark/fines piles, and dryer fire and raw fuel dumps. Table 13 to the ADEM Form 103 shows the complete listing of insignificant activities.

Proposed Changes

The renewal MSOP would include the following changes to the current permit:

- Unit 009 (rotary dryer system) has been updated to incorporate the requirements of Air Permit Nos. X029 (RTO replacement) and X031 (dryer replacements). The PCWP MACT requirements were also updated to reflect the current rule, most notably the replacement of SSMP requirements with work practice standards during safety-related shutdowns, and five-year periodic VOC emission testing.

- Unit 010 (board press system) has been updated to reflect the replacement of the RCO/RTO for which Air Permit No. X034 was issued on June 11, 2025. The process is currently operating under a TAO that expires on August 7, 2026. Compliance testing is scheduled for June 2026 to determine compliance with the emission limits for particulate, NOx, CO, VOC, and VOC destruction efficiency. The unit-specific provisos contain initial compliance testing requirements as included in X034.

- The contents of Resin Storage Tanks T-19 (now MDI/PF resin), T-21 (now MDI/PF resin), and RA-1 and RA-2 (now release agent; formerly PF resin) listed in the Summary Page for Unit 013 have been updated to reflect changes in the products stored.

- Unit 019 has been added for the modified dry fuel system, for which Air Permit No. X030 was issued on January 8, 2018, for the addition of an overflow pneumatic line and a second

baghouse. The original system is listed as Unit 006 in the current MSOP, which has been deleted.

- Units 020 and 021 have been added to reflect the new 939 hp diesel emergency generator engine and the new 238 hp diesel emergency fire pump engine. Air Permit No. X032 was issued for the generator engine on April 19, 2023, and Air Permit No. X033 was issued for the fire pump engine on November 13, 2024. These units replace Units 015 and 016 for the removed original engines, which have been deleted.

On April 28, 2026, LP provided comments on the draft permit. The main request was the extension of the averaging period for the emission monitoring production limit of 68,023 ft^2 of OSB per hour on a 168-hour (weekly) averaging period, based on a board thickness of 3/8" and a board density of 43 lb/ft^3. LP proposes to change the averaging period from weekly averages to 12-month rolling periods. The limit originally utilized a 24-hour daily averaging period and was established as emission monitoring in the 1999 initial MSOP for several sources with existing VOC emission limits (ppm and lb/hr) but without VOC control devices. The limit never appeared in any prior Air Permits. It was based on an assumption that the VOC emissions are loosely correlated to the daily production. The averaging period was extended from 24-hour periods to 168-hour periods in a minor modification to the MSOP on January 22, 2018, due to the facility's ability to exceed the hourly production rate limit on a short-term basis, but not on a longer-term basis. LP now proposes to change the averaging period from a weekly hourly average to a rolling 12-month OSB production total limit of 595,881,480 ft^2 (68,023 ft^2/hr x 8,760 hr/yr). Since the limit is monitoring for a PSD related emission limit, PSD is based on annual emissions, and the limit is equivalent, the Air Division concurs with LP's proposed emission monitoring change request.

A second request was the addition of language in the NOx equations in Units 009 and 010 clarifying that the emission factors may be adjusted based on the results of subsequent compliance tests. Lastly, LP requested that it be clarified that annual RCO catalyst activity level testing may be forgone during years in which a compliance test is performed as allowed by the PCWP MACT. The Air Division concurs with these requests as well and the language was added to the draft permit.

Applicability: Federal Regulations

Title V

This facility is a major source under the Title V regulations as potential emissions of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) exceed the 100 TPY major source threshold. It is a major source of Hazardous Air Pollutants (HAP) as potential emissions exceed the 10 TPY (single HAP) and the 25 TPY (combined HAP) major source thresholds.

Prevention of Significant Deterioration (PSD)

This facility is located in Cullman County, which is an attainment area for all criteria pollutants. LP is located ~ 64 km from the Sipsey Wilderness Area, a PSD Class I Area. It is not one of the 28 major stationary source categories listed in ADEM Admin. Code r. 335-3-14-.04(2)(a). Therefore, the criteria pollutant major source threshold of concern is 250 TPY. The Hanceville OSB mill was constructed in the early 1990's as a major source under the PSD regulations, with preconstruction PSD permits issued in 1991. Additionally, the facility underwent PSD in 1994 and 1997 for various modifications and BACT limit changes. During the 1997 PSD review, at LP's request, the thermal oil heater (Unit 011, TOH) was limited to operating no more than 800 hours during any consecutive 12-month period while firing natural gas and venting to the atmosphere. This was due to the necessity of the TOH requiring startup prior to the dryer system to which it normally vents while burning wood fuel. In 2005, LP proposed modifications to the wafer drying process and revised emission limits so that the entire facility became a synthetic minor source under the PSD regulations with potential emissions of each criteria pollutant at less than 250 TPY. Air Permit Nos. X020 and X021 were issued on June 16, 2006, to authorize construction of the modifications and to institute the synthetic minor source emission limits. The facility remained a synthetic minor source through the issuance of Air Permit No. X027 in 2013. With the issuance of Air Permit No. X028 in 2014, the facility became a major source under the PSD regulations due to the plantwide potential VOC emissions exceeding 250 TPY. Therefore, the facility is currently a major source under the PSD regulations for any future modifications. All projects since 2014 that led to the issuances of Air Permit Nos. X029 – X034 were minor modifications under the PSD regulations.

New Source Performance Standards (NSPS)

The facility has three units subject to an NSPS. The 34 MMBtu/hr thermal oil heater (Unit 011) was constructed after the June 9, 1989, applicability date for 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, and it exceeds the 10 MMBtu/hr minimum applicable heat input capacity. The unit heats oil to provide indirect heat to the board press system. Therefore, it is subject to these federal regulations. The primary fuel for the thermal oil heater is wood residuals, but it is equipped with a natural gas burner for use during startup and as a backup fuel. When being fired by wood fuel, the exhaust is vented to provide direct heat to the five rotary wood wafer dryers (along with the 170 MMBtu/hr bark burner). When fired by natural gas, the exhaust is vented directly to the atmosphere through a bypass stack. Due to its capacity exceeding 30 MMBtu/hr, the unit is subject to the NSPS particulate emission rate limit of 0.10 lb/MMBtu and the associated opacity limits when utilizing wood fuel. The facility is also required to operate and maintain a continuous opacity monitoring system (COMS). Due to the configuration of the system and its direct firing into the rotary dryers, the COMS is installed on the Dryer RTO stack. This NSPS is not applicable to the wood-fired bark burner of the rotary dryer system since it provides direct heat to the dryers.

The 939 hp emergency diesel generator engine (Unit 020) is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which applies to owners/operators of stationary CI ICE that commence construction after July 11, 2005, and are manufactured after April 1, 2006, and are not fire pump engines [§60.4200(a)(2)(i)]. Since the engine was manufactured in 2022, it is subject to this NSPS. According to §60.4205(b),

owners and operators of post-2007 model year emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR §60.4202(a)(2). In addition to the emission standards found in §89.112(a), Table 1, for NMHC+NOx (4.8 g/hp-hr), CO (2.6 g/hp-hr), and PM (0.15 g/hp-hr), the engine is subject to the opacity standards found in §89.113. This engine is also subject to a PSD-SMS limit of 100 hours of operation during any consecutive 12-month period.

The 238 hp emergency diesel fire pump engine (Unit 021) is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which applies to owners/operators of stationary fire pump engine CI ICE that commence construction after July 11, 2005, and are manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006 [§60.4200(a)(2)(ii)]. Since the engine is new, it is subject to this NSPS. According to §60.4205(c), owners or operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII, for all pollutants. According to Table 4, the engine is subject to emission limits for NMHC+NOx (3.0 g/hp-hr), CO (2.6 g/hp-hr), and PM (0.15 g/hp-hr).

Applicable to both emergency diesel engines, Subpart IIII has fuel requirements for the sulfur content of the fuel (≤ 15 ppm) and the Cetane index (≥ 40) or aromatic content (≤ 35% by volume). The engines must be equipped with non-resettable hour meters. The NSPS also limits the operation of the engines to emergency situations and 100 hours per year for maintenance checks and readiness testing. The permittee is required to make a record of the operation of the engines in emergency and non-emergency service as recorded by the non-resettable hour meters. The permittee must record the date, time, duration, and purpose of operation of the engines each time they operate. To demonstrate compliance with the fuel limitations, the permittee would be required to maintain records of the sulfur content and either the Cetane index or aromatic content of the diesel fuel that is burned in the engines. The permittee is required to maintain these records in a permanent form suitable for inspection and make the records readily available for inspection upon request. The records are required to be retained for a period of 5 years from the generation of each record.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

This facility is a major source of HAP, as listed in ADEM Admin. Code r. 335-3, Appendix G, and has processes that are affected sources under 40 CFR 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products (PCWP MACT) originally promulgated on July 30, 2004, and revised on February 16, 2006, October 29, 2007, and August 13, 2020. As an existing source under the MACT, LP's original compliance date was October 1, 2007. However, on August 16, 2007, LP was granted a one-year extension until October 1, 2008. The 2nd MSOP renewal application contained a MACT compliance plan for the two facility sources with operating limits, the wood wafer drying system (Unit 009) and the board press system (Unit 010). LP chose the option of complying with the MACT using the existing add-on control devices (RTO1/2/3; now Dryer RTO/RTO3) and reducing emissions of total HAP, measured as THC (as carbon) by 90 percent (Table 1B(1) of Subpart DDDD). No changes were proposed for the 3rd MSOP renewal, and no changes to the chosen compliance option were proposed for this 4th MSOP renewal. The draft permit contains the appropriate emission limits, notification, and recordkeeping and reporting requirements of Subpart DDDD.

Though emissions are negligible, the edge sealing and stenciling operations (Unit 012) and six resin storage tanks (Unit 013) are included as significant sources in the draft MSOP due to their being included as part of the "affected source" as defined in 40 CFR §63.2291 of the PCWP MACT. Unit 012 is subject only to a work practice requirement that only non-HAP coatings be used. Unit 013 has no unit-specific requirements.

The Techshield® surface coating line (Unit 014) is subject to the Surface Coating of Wood Building Products MACT, 40 CFR 63, Subpart QQQQ. Under this MACT, LP is required to use "zero-HAP" materials, including coatings, thinners, and cleaning solvents. The draft permit includes the appropriate MACT requirements.

The 935 hp emergency generator diesel engine (Unit 020) and the 238 hp emergency fire pump diesel engine (Unit 021) are affected sources under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Subpart ZZZZ defers compliance to NSPS, Subpart IIII. These engines do not have to meet requirements of Subpart ZZZZ or Subpart A, except for the initial notification requirements of §63.6645(f).

Applicability: State Regulations

Particulate Matter

The Hanceville OSB mill processes, other than Unit 019, are subject to case-by-case emission limits for particulate matter that are more restrictive than the State allowable emission rate limitations of ADEM Admin. Code r. 335-3-4-.04(1) for Process Industries-General. Unit 019 is subject to the State allowable based on process weight. All particulate emission sources other than the dryer RTO are subject to ADEM Admin. Code r. 335-3-4-.01(1), which sets forth a visible emissions standard which states that each particulate-emitting stationary source at the facility shall not discharge more than one six-minute average opacity greater than twenty percent (20%) in any 60-minute period. Furthermore, at no time shall a source discharge a six-minute opacity of particulate emissions greater than forty percent (40%). Due to the NSPS applicability of the thermal oil heater, visible emissions from RTO1/RTO2 are subject to the opacity requirements in 40 CFR §60.43c(c), which limits the visible emissions to twenty percent (20%), based on a six-minute average, except for one six-minute period per hour of not more than twenty seven percent (27%).

Sulfur Oxides (SO_X)

Emissions from the thermal oil heater (Unit 011) are subject to the sulfur dioxide emission standard in ADEM Admin. Code r. 335-3-5-.01(b), which limits the unit to 4.0 lb/MMBtu heat input. This regulation would not apply to the wood-fired bark burner of the five rotary wafer dryers as it provides direct heat. The auxiliary burners of the RTO/RCO control devices are not subject to this regulation. There are no other significant combustion sources at the facility.

Monitoring/Testing/Recordkeeping/Reporting

001 – Trim Saws; 003 – Forming Sheet Material Reject System; 004 - Fuel Grinder; 005 – Three Material Blenders; 017 – Board Sander/Tongue and Groove Machine; 018 – Raw Fuel Bin Overflow System; 019 – Dry Fuel System; Dry Fuel Bin Overflow System

Particulate Matter: These processes utilize baghouses in the pneumatic transfer of wood residuals. They are subject to emission limits originally established as BACT, to PSD synthetic minor emission limits, and/or to the State allowable based on process weight (019). They are also subject to the State opacity standard. Stack tests conducted on several of the baghouses over the years have indicated that the units are able to comply with their respective limits. Emission monitoring for the baghouses for compliance with the particulate and visible emission limits would include:

- 5-year periodic testing for particulate matter, with the exception of Unit 019, due to the large expected compliance margin;
- Daily observations for the presence of visible emissions;
- Daily observations of the pressure drop across each baghouse to ensure that it is within the manufacturer's recommended range;
- A requirement that whenever visible emissions are observed, or if the pressure drop is out of range, corrective action must be initiated as soon as practicable but no longer than 24 hours from the time of observation, followed by an additional observation to confirm that the visible emissions are eliminated and/or the pressure drop is within range; and
- To ensure proper operation, each baghouse must be physically inspected and cleaned, if needed, at least annually, but more frequently if visible emissions are observed or if the pressure drop is out of range.

Records of the daily observations, physical inspections, corrective actions, and emissions-related maintenance performed would be retained for a minimum period of five years from the date of generation. Additionally, a written report would be submitted to the Air Division for each calendar semiannual period certifying that the inspections were accomplished as required and it would include the nature and date of any excursions and corrective actions taken.

Volatile Organic Compounds: Units 001, 003, 004, 005, and 017 have VOC emission limits originally established as BACT. As baghouses are not VOC control devices, no emission monitoring of the baghouses for VOC emissions would be practical. In the initial MSOP, the emission monitoring established required monitoring the hourly production rate which equated to the VOC emission rate by mass balance. The maximum hourly OSB production rate was established at 68,023 ft^2 on a 3/8" basis using a 168-hour averaging period and a board density of 43 lb/ft^3. This equates to 91,406 lb/hr of resinated, oven-dried wafers. The individual BACT limits were based on the percentage of the dried wafers conveyed through each process, as proposed in the PSD application. Therefore, compliance with the VOC limits is assumed provided the maximum hourly OSB production rate is not exceeded. Since OSB is an engineered wood product, it can reasonably be assumed that the average hourly throughput of each transfer system would remain constant. Compliance would be verified through daily OSB production

recordkeeping. LP did not propose to change this monitoring approach, and it has been retained in the draft renewal MSOP.

009 – Nos. 1-5 Rotary Drum Wood Wafer Dryers

Particulate Matter/Volatile Organic Compounds/NOx/HAP: In this process, green wafers at a moisture content of 45-55% by weight are dried to a moisture content of 5-8% by weight in any one of five rotary dryers. Direct heat is provided to the dryers by a 170 MMBtu/hr "bark burner" and by the exhaust of the 34 MMBtu/hr wood-fired suspension burner of the thermal oil heater (011). Emissions from the dryers converge and the stream is divided between two wet electrostatic precipitators (WESPs) in parallel to control particulate emissions. The exhausts from the WESPs converge and vent to a manifold that distributes gases to a four module RTO (Dryer RTO) for VOC/HAP emissions control. LP conducted compliance testing on February 20-21, 2024, while operating under two scenarios. Condition 1 was testing while all five dryers were operating and venting to all four RTO modules, and Condition 2 was testing while all five dryers were operating and venting to three RTO modules. The following tables summarize the results:

Five Dryers into Four RTO Modules

Pollutant	Allowable	Result
PM	9.64 lb/hr	2.421 lb/hr
PM	0.15 gr/dscf	0.002 gr/dscf
Opacity	20%	0.83%
NOx	0.59 lb/MSF	0.000386 lb/MSF
CO	50.9 lb/hr	14.29 lb/hr
VOC	17.84 lb/hr as carbon	4.9 lb/hr as carbon
VOC	21.76 lb/hr as propane	5.5 lb/hr as propane
VOC DRE	> 90% DRE	97.3% DRE

Five Dryers into Three RTO Modules

Pollutant	Allowable	Result
PM	9.64 lb/hr	2.944 lb/hr
PM	0.15 gr/dscf	0.00229 gr/dscf
Opacity	20%	0.35%
NOx	0.59 lb/MSF	0.000285 lb/MSF
CO	50.9 lb/hr	39.1 lb/hr
VOC	17.84 lb/hr as carbon	3.98 lb/hr as carbon
VOC	21.76 lb/hr as propane	5 lb/hr as propane
VOC DRE	> 90% DRE	98.47% DRE

The results indicated compliance by significant margin when compared to the allowable rates. LP currently monitors RTO combustion chamber temperature and opacity (COMS). This unit is subject to the PCWP MACT. Under LP's chosen compliance option under the PCWP MACT to reduce THC emissions by 90%, VOC emissions are considered a surrogate for HAP. The NSPS opacity monitoring requirements remain but are not required by the MACT.

LP is also required to calculate the total NOx emission rate (monthly and 12-month rolling totals) from the drying system and the board press system using an approved equation. The calculations are required to verify compliance with the PSD-SMS limit for NOx across 009 and 010 ($\leq$ 243.1 TPY). In addition to the NOx emission calculations, a NOx compliance stack test is required at least every five years to verify compliance.

Emission monitoring for Unit 009 include:

- Minimum 5-year periodic compliance tests for NOx, particulate, CO, and VOC emissions;
- (MACT) Continuous monitoring of the RTO combustion chamber temperature and recording of 3-hour block averages to ensure that it is at or above the minimum established value. The minimum 3-hour block average temperature was established in accordance with 40 CFR §63.2262 during the February 20-21, 2024, stack tests at 1502°F;
- Continuous opacity monitoring as required by NSPS, Subpart Dc;
- Monthly calculation of the 12-month rolling total NOx emissions

MACT records specified in 40 CFR §63.2282 and Tables 7 and 8 to Subpart DDDD, RTO combustion chamber temperature, and COMS data must be retained for a period of five years from the date of generation. Additionally, written reports must be submitted to the Air Division for each calendar semiannual period certifying that the emission monitoring requirements were accomplished as required. It would include an excess emissions report, and it would include the nature and date of any monitoring parameter excursions and corrective actions taken. MACT semiannual compliance reports would be required in accordance with 40 CFR §63.2281 and Table 9 to Subpart DDDD.

010 – Board Press System

Particulate Matter/Volatile Organic Compounds/NOx/HAP: After mat forming operations where oriented wafers are laid in mats, the mats are pressed into boards in a 12-platen press. Indirect heat is supplied by hot oil from the thermal oil heater (011). Emissions from the pressing operations are collected from within a wood products enclosure and routed to an RCO/RTO (RTO3). LP converted the original RTO to an RCO in late 2004 by adding a layer of catalytic media and lowering the operating temperature. The original RCO/RTO was replaced in 2025 with a new unit, for which Air Permit No. X034 was issued on June 11, 2025. The current permit allows the control device to operate as either an RCO or an RTO, and minimum temperature operating limit is to be set in accordance with 40 CFR §63.2262 during the initial compliance test. The process was issued Temporary Authorization to Operate on January 5, 2026, which would expire on August 7, 2026. The initial compliance testing is scheduled for June 2-3, 2026. LP proposed no changes to its chosen compliance option under the PCWP MACT in the existing permit to reduce THC emissions by 90%. VOC emissions are considered a surrogate for HAP.

LP is also required to calculate the total NOx emission rate (monthly and 12-month rolling totals) from the drying system and the board press system using an approved equation. The calculations are required to verify compliance with the PSD-SMS limits for NOx across 009 and 010.

Emission monitoring for the RTO3 would include:

- Minimum 5-year periodic compliance tests for NOx, particulate, CO, and VOC emissions;
- (MACT) Continuous monitoring of the RCO/RTO combustion chamber temperature and recording of 3-hour block averages to ensure that it is at or above the minimum established value. The minimum 3-hour block average temperature will be established in accordance with 40 CFR §63.2262 during the upcoming initial compliance tests;
- (MACT) Annual sampling of the catalytic media for testing the activity level when operating as a RCO;
- Monthly calculation of the 12-month rolling total NOx emissions

MACT records specified in 40 CFR §63.2282 and Tables 7 and 8 to Subpart DDDD, and RTO/RCO combustion chamber temperature must be retained for a period of five years from the date of generation. Additionally, written reports must be submitted to the Air Division for each calendar semiannual period certifying that the emission monitoring requirements were accomplished as required. The reports would include the nature and date of any monitoring parameter excursions and corrective actions taken. MACT semiannual compliance reports are required in accordance with 40 CFR §63.2281 and Table 9 to Subpart DDDD.

011 – Thermal Oil Heater

Particulate Matter: As described in the NSPS section, this unit is subject to the federal standards for particulate and visible emissions under Subpart Dc. To fulfill the NSPS requirements, visible emissions from the thermal oil heater while being fired with wood fuel and providing direct heat to the wood wafer dryers are monitored by a COMS located on the exhaust stack of the Dryer RTO. Particulate emissions from the TOH while exhausting directly to the wood wafer dryers are regulated under the PCWP MACT. Monitoring for the 800 hr/yr operating limit while being fired with natural gas and venting to the atmosphere would be accomplished by recordkeeping. The number of operating hours must be included in the semiannual monitoring reports.

012 – Edge Sealing and Stenciling Operations; 013 – Resin Storage Tanks

The PCWP MACT, 40 CFR Part 63, Subpart DDDD requires the use of only "non-HAP" group 1 miscellaneous coatings. Under the MACT, the facility is required to maintain records to show that only non-HAP coatings are being used. There are no unit-specific monitoring requirements for the resin storage tanks.

014 – Techshield® Surface Coating Line

The TechShield® line is subject to 40 CFR Part 63, Subpart QQQQ. In this line, a sheet of aluminum foil is glued to one side of individual finished OSB panels using a water-based ethylene-vinyl acetate copolymer adhesive (SWIFT® 47913). As a new source under this MACT, LP is required to use a "zero-HAP" materials, including coatings, thinners, and cleaning solvents. Table

1 of Subpart QQQQ specifies an emission limit of 0 grams HAP per liter solids or 0.00 pounds HAP per gallon solids for the "other interior panels" category. In accordance with 40 CFR §63.4741(4), information from the supplier or manufacturer of materials may be used to demonstrate compliance with the emission limitations. Zero-HAP materials must have HAP contents of ≤ 1% non-carcinogens and ≤ 0.1% carcinogens. Water is used as a diluent and as the cleaning solvent.

LP chose to comply with the MACT using the compliant material option, 40 CFR §63.4691(a). This option has no associated operating limits or work practice standards. Semiannual Compliance Reports (SCR) are required for periods of January 1st through June 30th and July 1st through December 31st each year. Each SCR must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. LP may elect to submit the SCRs as part its Semiannual Monitoring Reports under its MSOP, which are to be postmarked by 30th day following June 30th and December 31st.

The recordkeeping requirements of Subpart QQQQ are contained in 40 CFR §63.4730, which include copies of any submitted notifications or reports, a current copy of information from material suppliers or manufacturers, records of the coating operations used and time periods for each compliance option, calculations, and deviations. Records must be retained for at least five years from the date of generation, with the most recent two years to be on-site. Unless there is a deviation, continuous compliance would be demonstrated in the SCRs by stating that no coating for which the organic HAP content exceeded the applicable emission limit in 40 CFR §63.4690 and no thinner or cleaning material that contained organic HAP, determined according to 40 CFR §63.4741(a) were used during the reporting period.

020 – 938 hp Emergency Diesel Generator Engine; 021 – 238 hp Emergency Diesel Fire Pump Engine

These engines are subject to the emission standards, monitoring, and recordkeeping requirements of 40 CFR Part 60, Subpart IIII, which are outlined in the NSPS section above. No additional monitoring requirements would be necessary, except for the keeping of 12-month rolling total operating hours for 020 to demonstrate compliance with the PSD-SMS operating hour limit of 100 hr/yr.

Compliance Assurance Monitoring (CAM)

The three material blenders with baghouse (Unit 005) is the only unit subject to CAM. This is due to the material collected by the baghouse is waste that is not a salable product or recycled back into the process. In the past, the wood wafer drying process with two WESPs and RTOs (009), and the board press system with RCO/RTO (010), were subject to CAM. However, these units are subject to emission monitoring specified under the PCWP MACT which supersedes the former CAM requirements for pollutants regulated by the MACT. No other pollutants for these sources would trigger CAM applicability. 40 CFR §64.2(b)(1)(i) stipulates that CAM does not apply to units that have "emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or 112 of the Act" if the control device is required to reduce emissions of the same pollutant to meet another emissions standard. Although the potential HAP emissions from the dryers and press are greater than the applicable major source thresholds, CAM

is not required for the dryer RTO or board press RCO/RTO as the standards of Subpart DDDD were proposed after November 15, 1990. The remaining processes with pneumatic material transfer systems and baghouses are not subject to CAM as the baghouses were designed to be product separators that are inherent to the process and recycle collected materials back into the process. There are no other processes at the facility that meet CAM applicability criteria.

Particulate Matter for Unit 005: In this process, dried wafers are blended with wax and resin in three rotary blenders prior to the mat forming line. The baghouse (S-10) aspirates wood fines from several points about the enclosed blender outfeed conveyors and the mat forming heads. It is a pollution control device for particulates, for which the unit is subject to a case-by-case emission limit. Material captured by this baghouse (S-10) is collected for disposal. The pre-controlled particulate emissions from this process exceed 100 TPY, making the unit subject to CAM. Since the particulate emission limit (3.59 TPY) is less than the 100 TPY major source threshold, it is subject to "small CAM", requiring a minimum daily data point collection in its monitoring plan. Stack testing performed on May 21, 2004, indicated an average emission rate of 0.5422 lb/hr, which is ~ 66% of the allowable rate (0.82 lb/hr). In the current MSOP, visible emissions and pressure drop are the indicators monitored. The pressure drop is monitored daily and the baghouse stack is to be observed daily for the presence of visible emissions. The pressure drop range is 0.1-5.0 inches of water. The existing weekly visual observation frequency was changed to daily in the draft permit to be consistent with that required of the other baghouses at the facility. Emission monitoring for baghouse S-10 would include:

- 5-year periodic testing for particulate matter;
- Daily observations for the presence of visible emissions;
- Daily observations of the pressure drop across each baghouse to ensure that it is within the manufacturer's recommended range of 0.1-5.0 inches of water;
- A requirement that whenever visible emissions are observed, or if the pressure drop is out of range, an excursion is indicated. Upon detecting an excursion, corrective action must be taken expeditiously to determine the cause and correct the problem; and
- To ensure proper operation, the baghouse must be physically inspected and cleaned, if needed, at least annually, but more frequently if visible emissions are observed or if the pressure drop is out of range.

Records of the daily observations, inspections, corrective actions, and emissions-related maintenance performed would be retained for a minimum period of five years from the date of generation. Additionally, a written report must be submitted to the Air Division for each calendar semiannual period certifying that the inspections were accomplished as required. It would include the nature and date of any excursions and corrective actions taken.

Fugitive Dust and Fugitive Emissions

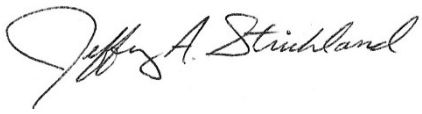
ADEM Admin. Code r. 335-3-4-.02 requires that precautions be taken to prevent particulate matter from becoming airborne. This rule is applicable. The facility submitted a fugitive dust plan on October 10, 2022. The dust plan would be included in Appendix A of the permit.

Public Participation

A 30-day public comment period and a 45-day EPA review period are required prior to issuance of this MSOP.

Recommendation

Based on the above analysis, I recommend that Louisiana-Pacific Corporation's MSOP (Facility No. 702-0027) be renewed with the requirements noted above, and pending the resolution of any comments received during the 30-day public comment period and the EPA 45-day review period.



Jeffrey A. Strickland
Chemical Branch
Air Division

May 7, 2026
Date