STATEMENT OF BASIS
GEORGIA-PACIFIC WOOD PRODUCTS, LLC
TALLADEGA, TALLADEGA COUNTY, ALABAMA
FACILITY/PERMIT NO. 309-0075

This proposed Title V Major Source Operating Permit (MSOP) renewal has been developed in accordance with the provisions of ADEM Admin. Code r. 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 initial application for this renewal was received on November 21, 2024, with revisions received on March 4, 2025, March 10, 2025, and March 31, 2025. The application was deemed complete on March 31, 2025. The initial/ current MSOP was issued and effective on May 28, 2020, and will expire on May 27, 2025. This is the 1st renewal.

The facility is located in Talladega County, which is currently listed as attainment with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Georgia-Pacific Wood Products, LLC- Talladega Lumber Mill 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 AL0000000112100075)

Permit History

Table 1: ***The following is a history of previously issued permits which established current permit limits for this facility.***

Issuance No./ Permit No.	Issuance Date	Limit(s) Established	Limit(s) Basis/ Reasoning
Air Permit No. X002	December 18, 2017	• Kilns 1-2 (CDK-1, CDK-2) Emission Limit: 0.33 lb/hr of PM, each • Kiln 3 (CDK-3) Emission Limit: 0.23 lb/hr of PM • Kilns 1-3 (CDK-1, CDK-2, CDK-3) Emission Limit: 5.49 lb/MBF of VOC (as WPP1), each	PSD (SMS)- PM BACT- VOC
Air Permit No. X005	October 19, 2018	• Chipper Operational Limit: 6,200 hours during any consecutive 12-month period	PSD (SMS)- PM
Air Permit No. X006	October 19, 2018	• Planer Mill Operational Limit: 6,200 hours during any consecutive 12-month period • Planer Mill Cyclofilter (PM) Emission Limit: 1.01 lb/hr of PM	PSD (SMS)- PM

Initial MSOP*	May 28, 2020	• Chipper Cyclone (CHC) Emission Limit: 0.66 lb/hr of PM	PSD (SMS)- PM
Air Permit No. X007	March 2, 2023	• Fire Pump Engine Operational Limit: 500 hours	PSD (SMS)

** The chipper cyclone PM emission limit was established in Air Permit X005, which was issued on October 19, 2018. The emission limit was updated with the issuance of the initial MSOP.*

Facility Operations

Georgia-Pacific Wood Products, LLC (GP) owns and operates a softwood sawmill facility located in Talladega, Talladega County, Alabama. The significant sources of air pollutants at this facility include a sawmill, sawmill chipper/screen, chip conveyance, bark conveyance, chip cyclone, chip pile, sawdust conveyance, two (2) 120 MMBF/yr continuous lumber drying kilns (CDK) with two (2) 40 MMBtu/hr natural gas-fired burners, an 80MMBf/yr CDK with a 30 MMBtu/hr natural gas-fired burner, a planer mill with a cyclofilter and shaving conveyance, and a 247 bhp emergency engine. Unpermitted sources at this facility include a 2,000-gallon gasoline tank and a 6,000-gallon diesel tank. Insignificant emission sources at this facility include various storage tanks, log debarking, log bucking, and a board printing ID system.

Sawmill and Green End Operations

The Talladega Lumber Mill produces dimensional pine lumber from southern pine logs. Operations begin with the delivery of logs to the log storage area either on-site (log crane or dry log deck) or at the off-site storage area via truck. Logs are fed to the debarker where bark is removed, and flared ends of log stems are removed by the flare reducer. Logs are then cut to length within the log bucking process before being routed through the sawmill. The lumber is then sent to the green sorter where it is separated by dimension and length. The green (wet) lumber is sent to the lumber drying kilns and planer mill for further processing.

By-products from the sawmill and green end operations include bark, chips, and sawdust which are conveyed and stored in various locations prior to being shipped off-site. Bark conveyance includes bark from the debarker to the bark hog and then to a bark storage bin before being shipped off-site. Chip conveyance includes chips from the sawmill to the sawmill chipper/ screen, from the chipper to rail car, through the chip cyclone to the chip storage bin, or to the chip pile for storage prior to conveyance to the chip storage bin. Chips can also be conveyed to trucks to be shipped off-site from the chip storage bin or chip pile. The chip cyclone pneumatically conveys chips. Sawdust conveyance includes sawdust from the sawmill to the sawmill chipper/ screen and then to the sawdust storage bin. Sawdust from log bucking is conveyed to the bark hog and then to the bark storage bin before being shipped off-site. Haul roads are utilized from shipments off-site and temporary log storage.

Continuous Drying Kilns

The rough, green lumber is sorted and stacked before being dried in one of the three natural gas direct-fired continuous lumber drying kilns (CDK-1, CDK-2, CDK-3). CDK-1 and CDK-2 have a maximum capacity of 120 MMBF/yr and are each equipped with a 40 MMBtu/hr natural gas-

fired burner. CDK-3 has a maximum capacity of 80 MMBF/yr and is equipped with a 30 MMBtu/hr natural gas-fired burner. After drying, the lumber is removed from the kilns and placed in the cooling sheds prior to planing.

Planer Mill and Finished End Operations

From the cooling sheds, the lumber enters the planer mill, where it is planed to its final finished dimensions. Dried, dimensional lumber is planed into finished products, graded, trimmed, and stacked for sale in the planer mill. The finished lumber may be stored in lumber sheds prior to shipment off-site. Trim blocks and sawdust generated by the planer mill are hogged by the fully enclosed planer mill hog. The planer mill cyclofilter receives shavings, sawdust, and hogged material from the planer and hammer hog. Wood residuals are pneumatically conveyed from the planer mill cyclofilter to the shavings storage bin. Shavings are loaded directly into trucks from the shavings bin bottom discharge for shipment off-site.

Proposed Changes

This MSOP renewal will incorporate Air Permit No. X007, which was issued to GP on March 2, 2023, for the replacement of the emergency fire pump engine. The 250 bHp emergency fire pump engine (EU-004) previously permitted in the initial MSOP will be removed in this renewal.

Applicability: Federal Regulations

Title V

This facility is considered a major source under Title V regulations because potential emissions for volatile organic compounds (VOC) exceed the 100 ton per year (TPY) major source threshold. It is also a major source of hazardous air pollutants (HAPs) because the potential emissions of an individual HAP (Methanol) are greater than 10 TPY and the potential emissions for combined HAP exceed 25 TPY.

Prevention of Significant Deterioration (PSD)

The facility is located in Talladega County which is currently classified as an attainment area for all criteria pollutants. GP is not one of the 28 Major Source categories listed in ADEM Admin. Code r. 335-3-14-.04(2)(a)(1); therefore, the major source threshold of concern is 250 TPY for criteria pollutants. This facility is currently considered a major source under PSD regulations because the potential VOC emissions from the facility exceed 250 TPY. The facility has various Particulate Matter (PM) limits to remain below the PSD significance threshold for PM. The facility also has a 500 hour/yr operational limit for the fire pump engine to remain below PSD significance thresholds.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP requires that any facility regulated under section 112 of the Clean Air Act whose potential emission of hazardous air pollutants (HAPs) exceeds the major source threshold, unless the source is a specifically designated area source, must control these emissions to the level achievable by the best demonstrated technology as specified in the applicable provisions under 40 CFR Part 63. This facility is considered a major source for HAPs and an affected source under 40 CFR Part 63, Subpart DDDD, NESHAP: *Plywood and Composite Wood Products* (PWCP MACT) and 40 CFR Part 63, Subpart ZZZZ, NESHAP: *Stationary Reciprocating Internal Combustion Engines* (RICE MACT).

PCWP MACT

The PCWP MACT regulates HAP emissions from activities associated with the manufacture of plywood and other composite wood products, including stand-alone lumber kilns, in accordance with 40 CFR §63.2232. Processes that are not subject to the compliance options or work practice requirements specified in 40 CFR §63.2240, such as the lumber kilns, are specifically not required to comply with the compliance options, work practice requirements, performance testing, monitoring, startup/shutdown/maintenance (SSM) plans, and recordkeeping or reporting requirements of this subpart, or any other requirements in 40 CFR 63 Subpart A, except the initial notification requirements in 40 CFR §63.9(b) in accordance with 40 CFR §63.2252. The original air permit application served as the initial notification of the intention to construct three CDKs, which are affected sources under PCWP MACT.

RICE MACT

The fire pump engine is considered an existing, emergency, combustion ignition (CI) engine less than 500 Hp located at a major source of HAPs and is therefore considered an affected source under the RICE MACT. 40 CFR §63.6590(c)(6) stipulates "a new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions" must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply to the fire pump engine under Subpart ZZZZ.

New Source Pollutant Standards (NSPS)

Subpart Dc

40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applies to steam generating units with a heat input capacity of greater than or equal to 10 MMBtu/hr and less than or equal to 100 MMBtu/hr that have been constructed, modified, or reconstructed after June 9, 1989. The kilns and their associated NG-fired burners are not subject to Subpart Dc because the heated air from the burners directly contacts the lumber during the drying process.

Subpart Kb

40 CFR Part 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, applies to storage vessels with a capacity greater than 75 cubic meters (m^3) (19,813 gallons) that are used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification commenced after July 23, 1984. All tanks of volatile organic liquids at this facility have a storage capacity of less than 19,813 gallons (75 m^3); therefore, Subpart Kb is not applicable.

Subpart IIII

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, applies to owners/ operators of stationary fire pump engine CI ICE that commence construction after July 11, 2025, and are manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006. Since the emergency fire pump engine (EU-004-1) was manufactured in 2017 and constructed in 2023, the engine is subject to Subpart IIII.

According to §60.4205(c), owners/ 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. In accordance with Table 4 to this subpart, the engine must meet a NOx + NMHC emission standard of 3.0 g/Hp-hr, and a PM emission standard of 0.15 g/Hp-hr. The Permittee must operate and maintain the engine in a manner that meets these emission standards over the certified emissions life of the engine. The NSPS also has fuel requirements for the sulfur content of the fuel (≤15 ppm) and the Cetane index (≥40) or aromatic content (≤35% by volume). The engine must be equipped with a non-resettable hour meter. The application indicated the engine is equipped with a non-resettable hour meter. The NSPS also limits the operation of the engine to emergency situations, 100 hours per year for maintenance checks and readiness testing, and 50 hours per year for non-emergency situations (not to exceed a combined total of 100 hours during any calendar year). Although the federal NSPS regulations allow only a maximum of 100 hours per year of non-emergency operation, there is no limit to the operating hours for emergency situations; however, GP-T has an hourly operating limit of 500 hours per year to avoid triggering PSD.

Applicability: State Regulations

Particulate Matter

Emissions from each process, except for the fire pump engine, are subject to the particulate matter (as TSP) emission limitation of ADEM Admin. Code r. 335-3-4-.04 for Process Industries-General. The allowable emission rate for each of the facility processes is calculated using the following process weight equations:

$$E = 3.59P^{0.62} \quad (P< 30 \text{ tons per hour})$$

Or

$$E = 17.31P^{0.16} \quad (P \geq 30 \text{ tons per hour})$$

where E = Emissions in pounds per hour
P = Process weight in tons per hour

Additionally, to avoid triggering PSD for particulate matter (PM) due to the State allowable based on process weight, GP has taken various limits for PM (referenced in permitting history chart).

The fire pump engine is not subject to any particulate matter (as TSP) emission limitation of ADEM Admin. Code r. 335-3-4 because it does not meet the definition of fuel-burning equipment and is not considered one of the process industries, general or specific.

Visible Emissions

In addition to the above limitations, ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that each stationary source at the facility shall not emit particulate emissions more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%.

Fuel Burning Equipment

The CDKs are not subject to ADEM Admin. Code r. 335-3-4-.03(1) because the kilns are direct fired, and therefore, not considered "fuel-burning equipment". The fire pump engine is not subject to this regulation because its function is to supply water in the event of a fire, and therefore, not considered "fuel burning equipment".

Sulfur Dioxide (SO_x)

The CDKs are subject to the State sulfur dioxide emission standard of 4.0 lb/MMBtu of heat input [ADEM Admin. Code r. 335-3-5-.01(1)(b)]. However, AP-42 emission factors are utilized to calculate the potential emissions in the application in lieu of the higher State allowable for applicability purposes under the Title V and PSD regulations. Although the fire pump engine is a fuel combustion source, it is not subject to any sulfur dioxide (SO_2) emission limitation of ADEM Admin. Code R. 335-3-5 since it does not meet the definition of fuel burning equipment.

Control of Organic Emissions

No provisions of ADEM Admin. Code 335-3-6 are applicable to the Talladega Lumber Mill. ADEM Admin. Code r. 335-3-6-.03 applies to VOCs with a true vapor pressure greater than or equal to 1.5 psia under storage conditions. Because the vapor pressure of the tanks located at this facility is below 1.5 psia, this rule is not applicable. This facility does not have fixed-roof petroleum liquid storage vessels regulated under ADEM Admin. Code 335-3-6-.04 and .27, which apply to storage vessels with capacities greater than 40,000 gallons. No tanks at this facility are greater than 40,000 gallons. Gasoline dispensing facilities are regulated under ADEM Admin. Code 335-3-6-.07. In accordance with ADEM Admin. Code 335-3-6-.07(2)(b), this rule does not

apply to stationary gasoline storage tanks of less than 3,000 gallons. The gasoline tank operated at this facility is 2,000 gallons; therefore, this regulation does not apply.

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 March 31, 2025. The dust plan will be included in Appendix A of the permit.

Emission Testing and Monitoring

EU 001 – Sawmill and Green End Operations

To ensure that the chipper operational limit is not exceeded, GP is required to calculate the total operating hours of the chipper for the previous month and previous consecutive 12-month period within ten (10) days of the end of each calendar month.

To ensure proper operation of the green end processes, sawmill, and chip cyclone, personnel familiar with each process shall perform weekly instantaneous checks of each process for the presence of greater than normal visible emissions. Corrective action is required to be initiated as soon as practicable but not longer than 24 hours if visible emissions are determined to be greater than normal. Annual physical inspections/cleaning of the chipper cyclone are also required.

Because emissions of particulate matter do not surpass any applicability thresholds, emissions testing will not be required at this time.

EU 002 – Kilns 1-3

GP is required to measure and record the moisture content of the lumber as it exits the planer machine to ensure the 12-month rolling average moisture content is $\geq$ 12%. The permittee is also required to use proper maintenance and operating practices for the kilns in accordance with the facility's developed kiln maintenance plan, which was submitted to the Air Division on December 12, 2018.

Emissions from the kiln vents are primarily condensed water vapor and VOC driven off from the drying lumber. Due to the nature of the emissions from the kilns, emission testing and monitoring for the SIP visible emission and particulate standards is not considered practical for the kilns.

EU 003 – Planer Mill & Finished End Operations

To ensure the hourly operational limit of the planer mill is not exceeded, the permittee is required to calculate the total operating hours of the planer mill for the previous month and previous consecutive 12-month period within ten (10) calendar days of the end of each calendar month.

To ensure proper operation of the planer mill and finished end operations, personnel familiar with each process shall perform weekly instantaneous checks of each process for the presence of greater than normal visible emissions. Corrective action is required to be initiated as soon as practicable

but not longer than 24 hours if visible emissions are determined to be greater than normal. Annual physical inspections/cleaning of the planer mill cyclofilter are also required.

Because emissions of particulate matter do not surpass any applicability thresholds, emissions testing will not be required at this time.

EU 004-1 – Emergency Fire Pump Engine

GP is required to operate and maintain the fire pump engine according to the manufacturer's written instructions over the life of the engine and is required to install and operate a non-resettable hour meter on the engine.

Because the engine is certified by the manufacturer to meet the applicable emission standards, no emission testing will be required at this time.

If emission problems are observed in the future from these emission sources, testing may be required at that time.

Recordkeeping and Reporting

To verify compliance with the chipper's hourly operational limit, GP is required to keep records of the chipper's hours of operation on a monthly and 12-month rolling total basis.

To verify the kilns' maximum capacity (used to calculate emissions during BACT analysis) is not exceeded, GP is required to keep records of the combined kiln production on a monthly and 12-month rolling total basis. GP is required to maintain records of the average monthly and 12-month rolling average lumber moisture content. Also, the permittee must maintain records documenting its compliance with the facility-developed kiln maintenance plan.

To verify compliance with the planer mill's hourly operational limit, GP is required to keep records of the planer mill's hours of operation on a monthly and 12-month rolling total basis.

The permittee is also required to maintain records of the required visible emission checks, inspections, and cleanings of all cyclones. These records must include (as applicable):

- The date, time, and results of each instantaneous check of visible emissions;
- The date(s), time, nature, and results of any corrective action taken when deviations from an emission monitoring parameter were observed; and
- The date(s) and time each control device was inspected for proper operation and, if the results of the inspection indicated that cleaning or emission-related maintenance was needed, the date(s), time, and nature of the cleaning/maintenance performed.

To verify compliance with the fire pump engine's operational limit, GP is required to keep records of the date, time, duration, and purpose of operation each time the fire pump engine is operated. The permittee is required to record the monthly and 12-month rolling total hours of operation for

the engine. To demonstrate compliance with the fuel limitations, GP is required to maintain records of the sulfur content and fuel delivery receipts of the diesel fuel that is burned in the engine.

The MSOP requires that records be kept in a permanent form suitable for inspection, be retained for a period of five years from the date of generation of each record and be made available for inspection upon request.

The permittee is required to include the following information (as applicable) in the Semiannual Monitoring Report required by General Permit Proviso No. 21:

- A statement as to whether all emission monitoring was completed as required during the reporting period, and if not, the date(s) and reason(s) why the monitoring was not performed;

- A statement as to whether the annual inspections of the cyclone and/ or cyclofilter were accomplished during the reporting period, and if so, the date and results of the inspection; and

- The date(s), time, nature, and results of any corrective action taken when (1) greater than normal visible emissions were observed or (2) an inspection of the cyclone and/ or cyclofilter indicated that cleaning or emission-related maintenance was needed.

The permittee is required to submit an Annual Compliance Certification for each source to the Air Division as required by General Permit Proviso No. 12. This compliance certification must include the following for each source, as applicable:

- The identification of each term or condition of this permit that is the basis of the certification;
- The compliance status, whether continuous or intermittent;
- The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
- Other facts the Department may require to determine the compliance status of the source.

Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring (CAM), 40 CFR Part 64, applies to any pollutant-specific emission unit at a major source that is required to obtain an operating permit, in accordance with 40 CFR 64.5, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant.
- It uses a control device to achieve compliance with the applicable emission limit or standard.

- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY of a criteria pollutant, 10 TPY of an individual HAP, or 25 TPY of total HAP.

According to 40 CFR §64.1, a control device is defined as equipment other than inherent process equipment. Inherent process equipment is defined as equipment necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. According to the application, the chip cyclone (CHC) and planer mill cyclofilter (PM) are considered inherent process equipment, because the primary purpose of the cyclone and cyclofilter is material recovery. Therefore, GP is not required to submit a CAM plan for this facility at this time.

Air Quality Impact

This facility is located in Talladega County, which is an attainment area for all criteria pollutants, and is not located within a 100 km radius of any PSD Class I Area. Therefore, the emissions from this facility are not expected to have any significant impact on the area.

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 GP's Major Source Operating Permit (309-0075) be renewed with the requirements noted above, and pending the resolution of any comments received during the 30-day public comment period and 45-day EPA review period.

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Melanie Nabors
Chemical Branch
Air Division

DRAFT
Date