

## STATEMENT OF BASIS

**Georgia-Pacific Wood Products, LLC  
Belk Chip-N-Saw Facility  
Belk, Fayette County, Alabama  
Facility/Permit No. 404-S002**

This draft renewal Title V Major Source Operating Permit (MSOP) is proposed under 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 current MSOP was issued on July 8, 2015, and it will expire on June 13, 2020. It underwent a significant modification on May 1, 2019, to incorporate the requirements of Air Permit Nos. X006, X007, and X008.

Georgia Pacific Wood Products, LLC (Georgia Pacific) operates an existing sawmill that produces finished dimensional lumber from southern yellow pine logs. The significant sources of air pollutants listed in the current MSOP include three steam-heated lumber dry kilns (Units 002A, B, and C), a green wood chipper/sawmill with a cyclone (Unit 003), a planer mill operation with two cyclones (Unit 004), a 238 hp emergency fire water pump diesel engine (Unit 005), a 125,000 MBF/yr direct-fired continuous lumber dry kiln (CDK) with a 35 MMBtu/hr wood-fired burner (Unit 006), a pneumatic sawdust fuel transport and storage with two cyclones (Unit 007), and a 60 MMBtu/hr natural gas-fired boiler (Unit 008). Insignificant emission sources include log debarking and sawing; mechanical conveyance of chips and sawdust; diesel, gasoline, and oil storage tanks; ash hauling and disposal; wood residual storage bins; bark piles; water cooling towers, building fans, welding activities, and ink-stencil operations. There have been no changes to any significant emission units since the issuance of the current modified MSOP.

### **Applicability: Federal Regulations**

#### *Title V*

This facility is a major source under the Title V regulations because potential emissions for particulate matter (PM), carbon monoxide (CO), and volatile organic compounds (VOC) each exceed the 100 TPY major source threshold. It is also a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions are greater than 10 TPY (methanol) and the potential emissions of combined HAP exceed the 25 TPY major source threshold.

#### *Prevention of Significant Deterioration (PSD)*

This facility is located in an attainment area for all criteria pollutants and the facility operations are not one of the 28 listed major source categories; therefore, the major source threshold of concern is 250 TPY for criteria pollutants. The facility is a major source under PSD regulations for PM and VOC emissions. The facility underwent a PSD review in 2016 which resulted in the issuance of Air Permit Nos. X006 (CDK-D), X007 (Sawdust Fuel Transport and Storage), X008 (60 MMBtu/hr NG-fired Boiler), and X009 (CDK-E). The project was significant only for VOC emissions. The permits

contain synthetic minor emission limits for particulate matter so that the net emission increase for that pollutant was below the significance level. CDK-E was not constructed and Air Permit No. X009 has been voided. The 89 MMBtu/hr wood-fired boiler (Unit 001) was shut down on December 28, 2016, and dismantled as part of the project.

### NSPS

The 60 MMBtu/hr natural gas-fired boiler is subject to 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Because the boiler is fired with natural gas exclusively, it is only subject to the recordkeeping requirements that requires the facility to maintain daily or monthly fuel usage records.

### MACT

#### *National Emission Standards for Hazardous Air Pollutants (NESHAP) – Subpart DDDD*

This facility is a major source of HAP and the batch lumber dry kilns and the CDK are affected sources under 40 CFR Part 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products (the PCWP MACT) originally promulgated on July 30, 2004, and revised on February 16, 2006, and October 29, 2007. Though affected sources, there are currently no specific requirements for lumber dry kilns under Subpart DDDD.

#### *NESHAP – Subpart ZZZZ*

This facility has a unit that is an affected source under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (the RICE MACT). The 238 hp diesel-fired emergency fire water pump engine is classified as an existing source (constructed before the June 12, 2006, applicability date) and is subject to the work practice, recordkeeping, and reporting requirements of Subpart ZZZZ.

#### *NESHAP – Subpart DDDDD*

This facility is a major source of HAP emissions and has one boiler that is an affected source under 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (the Boiler MACT). The 60 MMBtu/hr natural gas-fired boiler is regulated as a new source under the Boiler MACT because it was manufactured in 2016, after the June 4, 2010, applicability date. Due to the use of only natural gas as fuel, the boiler is only subject to work practice standards under Subpart DDDDD which consists of annual tune-ups.

### **Applicability: State Regulations**

#### Particulate Matter

The lumber dry kilns and pneumatic wood residuals handling systems are each subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4-.04(1) for Process Industries-General. The allowable emission rate for each process is calculated using one of the following process weight equations:

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

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

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

The 60 MMBtu/hr natural gas-fired boiler is subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4-.03(1) for fuel burning equipment in Class 1 Counties, which limits the boiler to a particulate emission rate accomplished by use of the equation:

$$E = 1.38H^{-0.44}$$

where E = Emissions in lb/million BTU  
H = Heat Input in millions of BTU/hr

In addition to the above limitations, ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that no air emission source may emit particulate of an opacity greater than 20% (as measured by a six-minute average) more than once during any 60-minute period and at no time shall emit particulate of an opacity greater than 40% (as measured by a six-minute average).

Although the fire pump engine at this facility is fuel combustion source, it is not subject to any particulate matter (as TSP) emission standard of ADEM Admin. Code Chap. 335-3-4 or any sulfur dioxide (SO<sub>2</sub>) emission standard of ADEM Admin. Code Chap. 335-3-5 because it does not meet the definition of fuel burning equipment nor is this facility considered one of the process industries, general or specific. The engine is, however, subject to the visible emissions standards of ADEM Admin. Code r. 335-3-4-.01(1).

#### Sulfur Oxides (SO<sub>x</sub>)

The 60 MMBtu/hr natural gas-fired boiler is subject to the sulfur oxides (as SO<sub>2</sub>) emission limitations of ADEM Admin. Code r. 335-3-5-.01(1)(b), which limits the boiler to 4.0 lb/MMBTU heat input.

### **Emission Monitoring**

#### 002 – Lumber Dry Kilns: 002A, B, C

In each kiln, the green lumber is dried indirectly via radiant heat from closed steam coils. Emissions from the kilns are primarily condensed water vapor and VOC. Particulate emissions from the kilns are negligible. Due to the nature of the emissions from the kilns, neither emission testing nor periodic monitoring for the State particulate matter and visible emission standards would be considered practical or necessary.

*003/004 – Pneumatic Collection/Conveyance Systems for Green Wood Chipper/Sawmill and Planer Mill*

For compliance with the particulate and visible emission standards, Georgia Pacific is required to perform the following periodic monitoring:

- Weekly observations of each wood residual transfer system by someone familiar with the process during daylight hours for greater than normal visible emissions as determined by previous observations of normal operation.
- Whenever observed visible emissions are greater than normal, corrective action shall 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 emissions have been reduced to normal.
- To ensure proper operation, each cyclone shall be inspected and cleaned at least annually but more frequently if greater than normal visible emissions are observed.

*005 – 238 hp Diesel Emergency Fire Water Pump Engine*

No requirements beyond those prescribed by the RICE MACT would be necessary. As an existing emergency compression ignition (CI) stationary RICE <500 hp located at a major source of HAP emissions, the following requirements include:

- The engine shall be equipped with a non-resettable hour meter;
- Change oil and filter every 500 hours of operation or annually, whichever comes first;
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

In addition, this engine will be limited to operating during:

- Emergency situations;
- Maintenance checks and readiness testing, not to exceed 100 hours per year; and
- Non-emergency situations, not to exceed 50 hours per year (those 50 hours are counted towards the 100 hours per year provided for maintenance and testing).

*006 – 125,000 MBF/yr Continuous Direct-Fired Lumber Dry Kiln D with 35 MMBtu/hr Wood-Fired Burner (PSD/SMS)*

The CDK is subject to the State particulate visible emissions standards. It is also subject to a synthetic minor particulate emission limit of 1.56 lb/hr, and a VOC BACT limit of 5.49 lb/MBF as

WPP1 VOC. The use of No. 2 fuel oil as an assist fuel is allowed during cold startups, not to exceed 120 gallons during any consecutive 12-month period. Monitoring consists of operating the kiln in accordance with a unit-specific preventative maintenance plan and monitoring the lumber moisture content. Georgia Pacific is required to measure and record the moisture content of the lumber as it exits the planer machine. The 12-month rolling average moisture content must be  $\geq 12\%$ . Records are required to document compliance with the monitoring requirements.

*007 – Pneumatic Sawdust Fuel Transport and Storage Silo with Cyclone and Truck Bin with Cyclone (SMS)*

This process utilizes cyclone separators in the pneumatic transfer of wood residuals to storage. It is subject to the State allowable particulate emission rate as determined by the process weight equation and to the State visible emissions standard. It is also subject to a synthetic minor particulate emission limit of 0.59 lb/hr. For compliance with the particulate and visible emission standards, emission monitoring for the cyclones include:

- Weekly observations of each wood residual transfer system by someone familiar with the process during daylight hours for greater than normal visible emissions as determined by previous observations of normal operation.
- Whenever observed visible emissions are greater than normal, corrective action shall 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 emissions have been reduced to normal.
- To ensure proper operation, each cyclone shall be inspected and cleaned, if needed, at least annually but more frequently if greater than normal visible emissions are observed.

*008 – 60 MMBtu/hr Natural Gas-Fired Boiler (PSD)*

The natural gas-fired boiler is subject to the particulate matter emission limitations of ADEM Admin. Code r. 335-3-4-.03(1) for fuel burning equipment in Class 1 Counties. It is also subject to the sulfur oxides (as SO<sub>2</sub>) emission limitations of ADEM Admin. Code r. 335-3-5-.01(1)(b). Lastly, it is subject to a PSD-BACT VOC emission limit of 0.0054 lb/MMBtu input.

The boiler is subject to both 40 CFR Part 60, Subpart Dc, and 40 CFR Part 63, Subpart DDDDD, which require the keeping of fuel usage records and annual tune-ups. Due to the burning of only natural gas as fuel, the boiler is expected to be able to comply with the applicable emission limitations. Therefore, no additional monitoring beyond that required by these Federal regulations is considered necessary.

**Compliance Assurance Monitoring (CAM)**

According to the application, there are no units at the facility currently utilizing active air pollution control devices subject to CAM requirements (40 CFR Part 64). The cyclone separators utilized in the wood residual transfer operations are not considered control devices under CAM because they

meet the definition of inherent process equipment specified in 40 CFR §64.1. Therefore, this facility is not required to submit a CAM plan for this renewal.

### **Recordkeeping and Reporting Requirements**

#### *003/004 – Pneumatic Collection/Conveyance Systems for Green Wood Chipper/Sawmill and Planer Mill*

Georgia Pacific is required to maintain records, including dates, times, and results, of all visible emissions observations; corrective actions taken for greater than normal visible emissions; and cyclone inspections, cleanings, and emissions-related maintenance in a permanent form suitable for inspection for a period of 5 years from the date of generation of each record. The records shall be made available for inspection upon request.

#### *005 – 238 hp Diesel Emergency Fire Water Pump Engine*

Georgia Pacific is required to demonstrate compliance with the RICE MACT by keeping records of operation, maintenance activities, and emissions-related repairs; either a copy of the manufacturer's emission-related operation and maintenance instructions or the maintenance plan developed in accordance with 40 CFR §63.6625(e) for the unit; and the records shall be retained for at least five years from the date of generation and be made available for inspection upon request. At least the most recent two years of data must be kept on-site.

Georgia Pacific shall report to the Air Division any failure to perform a work practice on the schedule required. The report shall be submitted within two working days of the deviation.

#### *006 – 125,000 MBF/yr Continuous Direct-Fired Lumber Dry Kiln D with 35 MMBtu/hr Wood-Fired Burner (PSD/SMS)*

Georgia Pacific is required to maintain all applicable records listed below. The records must be retained for a period of five years from the date of generation and be made available for inspection upon request.

- (1) Records documenting its compliance with the preventative maintenance plan.
- (2) Records of the average monthly and 12-month rolling average lumber moisture content.
- (3) Records of monthly and 12-month rolling total lumber production.
- (4) Records of monthly and 12-month rolling total No. 2 fuel oil consumption as a kiln startup assist fuel.

If the kiln should exceed an applicable limit at any time, the permittee shall notify the Air Division in writing within 2 working days of determining that an exceedance occurred.

007 – Pneumatic Sawdust Fuel Transport and Storage Silo with Cyclone and Truck Bin with Cyclone (SMS)

Georgia Pacific is required to maintain records, including dates, times, and results of all visible emission observations; corrective actions taken for greater than normal visible emissions; and cyclone inspections, cleanings, and emissions-related maintenance in a permanent form suitable for inspection for a period of five years from the date of generation of each record.

008 – 60 MMBtu/hr Natural Gas-Fired Boiler (PSD)

Georgia Pacific is required to maintain records of daily or monthly fuel usage and copies of all reports and notifications, and all supporting documentation, submitted as required by 40 CFR Part 63, Subpart DDDDD. The records shall be retained for at least five years from the date of generation and be made available for inspection upon request. At least the most recent two years of data must be kept on-site.

In compliance with the Boiler MACT, Georgia Pacific is required to submit an Annual Compliance Report in accordance with 40 CFR §63.7550(b). The report should be postmarked or submitted by the 1<sup>st</sup> of March<sup>1</sup> each year for the previous calendar year reporting period (January 1<sup>st</sup> to December 31<sup>st</sup>). The report shall contain the following:

- (1) Company and Facility name and address;
- (2) Process unit information, emission limitations, and operating parameter limitations;
- (3) Date of report and beginning and end dates of the reporting period;
- (4) The total operating time during the reporting period;
- (5) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR §63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown;
- (6) If there are no deviations from the applicable requirements for work practice standards in Table 3 to Subpart DDDDD, a statement that there were no deviations from the work practice standards during the reporting period; and
- (7) If there is a deviation from a work practice standard during the reporting period, the report must contain the information in 40 CFR §63.7550(d).

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<sup>1</sup> Subpart DDDDD specifies that annual compliance reports be postmarked or submitted by January 31<sup>st</sup> each year for the previous calendar year. However, table 10 to Subpart DDDDD indicates at §63.10(a) of 40 CFR 63, Subpart A, General Provisions, applies to Subpart DDDDD. Therefore, the due date may be set to align with deadlines established in the Title V MSOP in accordance with 40 CFR §63.10(a)(5). Therefore, the draft MSOP includes a due date for the MACT annual compliance certification that coincides with the due date for the first Title V Semiannual Monitoring Report (March 1<sup>st</sup> each year).

Facility-wide Reporting Requirements

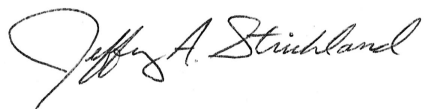
Georgia Pacific is required to submit a Semiannual Monitoring Report (SMR) according to General Permit Proviso No. 21(a) no later than 60 days after the end of each semiannual reporting period (January 1<sup>st</sup> to June 30<sup>th</sup> and July 1<sup>st</sup> to December 31<sup>st</sup>). The report shall certify whether all applicable unit-specific emission monitoring, maintenance, and recordkeeping requirements were accomplished during the reporting period and, if not, the dates and reasons why it was not accomplished. In addition, the SMR should provide the date, time, and duration of any instance that greater than normal visible emissions were observed. If applicable, the report should include the dates and reasons any corrective actions were taken.

**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**

Based on the above analysis, I recommend Georgia-Pacific Wood Products' Major Source Operating Permit (404-S002) be renewed with the conditions noted above, pending the resolution of any comments received during the 30-day public comment period and 45-day EPA review period.



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Jeffrey A. Strickland  
Chemical Branch  
Air Division

April 9, 2020  
Date