

**PRELIMINARY DETERMINATION**  
**Georgia-Pacific Wood Products, LLC**  
**Talladega Sawmill**  
**Facility No. 309-0075**

**Introduction**

On September 18, 2017, GBMc & Associates submitted, on behalf of Georgia-Pacific Wood Products, LLC (GP), a Prevention of Significant Deterioration (PSD) permit application. In the application, GP proposes to construct a new sawmill facility at a Greenfield site in Talladega County, Alabama. An application addendum was received on October 7, 2017. Once the construction is completed, the facility would have the capability of producing 329.6 MMBf of rough green lumber and 320 MMBf of kiln dried lumber per year. Air Permit Nos. X001 through X004 would be issued for the proposed sawmill pending the resolution of any comments that may be received during the public comment period and EPA review.

**Proposed Project**

The proposed sawmill would be constructed on the site of GP's existing plywood manufacturing facility, which was permanently shut down on July 21, 2016. The mill will have the capacity to produce 320 MMBF of dried lumber per year.

Processes at the facility would consist of log debarking, log bucking, 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, one 80MMBf/yr CDK with one 30 MMBtu/hr natural gas-fired burner, a planer mill with a cyclofilter and shaving conveyance, a 250 bhp emergency engine, a 2,000 gal gasoline tank, a 6,000 gal diesel tank, a 6,000 gal lubricant oil tank, and various trivial storage tanks.

Incoming logs would be stored on-site prior to processing. Logs would debarked and then cut to length within the log bucking process before being routed through the sawmill. The end product of this process is rough, green, dimensional lumber, some of which will be sold without further processing. Bark from the debarker would be routed to the bark hog and mechanically conveyed to the bark storage bin. Trimmings from the sawmill would be routed to the sawmill chipper/screen and mechanically conveyed to either a rail car, through the chipper cyclone to the chip storage bin, or to the chip pile for storage until conveyance to the chip storage bin. Note that the chipper cyclone, as process equipment, pneumatically conveys chips. Sawdust from the sawmill would be mechanically conveyed to the sawdust storage bin. Emissions from the green end processes, sawmill, and the storage bins would be fugitive. Emissions would be minimized by the use of covered belt or drag chain conveyors.

The green lumber would be sorted and stacked before being dried in one of the continuous drying kilns. As the green lumber enters the kiln, it would be slowly heated until it reaches the center, where most of the drying would take place. The proposed kilns would be direct-fired by their respective natural gas burners. All air emissions would exhaust through the open doorways at each end of the kilns and through one or more powered vent exhaust stacks located just inside of and above the doorway openings.

The dried lumber would be processed through the planer mill. Planer shavings and planer hog trimmings would be pneumatically conveyed to a cyclofilter before transferring by mechanical conveyor to the shavings storage bin. A cyclofilter is a combined cyclone and baghouse control device. The cyclofilter would be used for the transport and particulate emission control of the pneumatically conveyed shavings.

There is an existing 1984 Cummins 250 bhp diesel-fired fire pump emergency engine on site to provide water in case of an emergency.

### **Applicability: Federal Regulations**

#### **Title V**

Upon the completion of construction, this facility would be considered a major source under Title V regulations because potential emissions for volatile organic compounds (VOC) would 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 are greater than 10 TPY (Methanol has a potential to emit (PTE) of 40.10 TPY) and the potential emissions for combined HAP exceed 25 TPY (PTE of all HAPs is 54.70 TPY).

#### **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. GP would be 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).

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 application serves as the initial notification of the intention to construct three CDKs, affected sources under PCWP MACT.

The fire pump engine is an affected source under the RICE MACT. The engine is considered an existing, emergency, combustion ignition (CI) engine less than 500 Hp located at a major source of HAPs.

#### **The engine would be subject to the following requirements:**

##### **Emission/Operation Limitations**

There are no emission limitations for this engine.

In accordance with §63.6602 and Table 2c of Subpart ZZZZ, GP is required to change the 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 inspect all hoses and belts every 1,000 hours of operation or annually, whichever comes first.

In accordance with 40 CFR §63.6625(f), GP is required to install a non-resettable hour meter if one is not already installed.

In accordance with 40 CFR §63.6625(h), GP is required to minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### Continuous Compliance

In accordance with 40 CFR §63.6605(b), GP is required to operate and maintain the engine in a manner consistent with safety and good air pollution control practices for minimizing emissions.

#### Testing and Notification Requirements

There are no testing or notification requirements for this engine.

#### Recordkeeping and Reports

The recordkeeping requirements are outlined in 40 CFR §63.6655 and Table 6 of Subpart ZZZZ to demonstrate continuous compliance. GP is required to operate and maintain the engine according to the manufacturer's emission-related operation and maintenance instructions or to develop a maintenance plan, and to keep records of the maintenance conducted on the stationary RICE. In accordance with 40 CFR §63.6655, for each period of operation, GP is required to record the length of operation and the reason the engine was in operation. For periods of operation designated as "emergency operation", GP is required to record what classified the operation as emergency. In accordance with 40 CFR §63.6660, GP is required to maintain all reports (with supporting documentation), records pertaining to continuous compliance and records of all maintenance conducted must be maintained in a form suitable and readily available for expeditious review for a period of 5 years from the date of each record or report. They must be maintained on-site for at least 2 years and may be kept off-site for the remaining 3 years.

In accordance with 40 CFR §63.6675 and Footnote 1 of Table 2c of Subpart ZZZZ, GP is required to report any failure to perform a work practice, including instances when the work practice standard was not performed due to emergency operation or unacceptable risk under federal, state, or local law. The management practice should be performed as soon as practicable after the deviation.

#### **New Source Pollutant Standards (NSPS)**

No applicable NSPS has been promulgated for any process at the proposed facility.

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

The proposed facility will be located in Talladega County which is currently classified as an attainment area for all criteria pollutants. GP would not be 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 would be considered a new major stationary source under PSD regulations because the potential VOC emissions from the proposed facility would exceed 250 TPY (878.87 TPY of VOC).

A major source or major modification (one subject to PSD) must be constructed with Best Available Control Technology (BACT) and must have its effect on soils, vegetation, visibility, and ambient air quality addressed for each applicable pollutant. Applicability is determined by comparing each regulated pollutant's potential emission increase to its significant increase value. GP calculated the maximum pollutant emissions based on proposed future potential annual emissions (shown in the following table).

#### **Emissions Summary (TPY)**

<b>Proposed Potential Emissions (TPY)</b>	<b>PM*</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>SO<sub>2</sub></b>
Sawmill and Green End Operations	19.0	6.0	1.1				
Continuous Drying Kilns	3.0	7.1	7.1	39.7	29.3	878.4	0.3
Planer Mill and Finished End Operations	1.7	1.2	1.2				
Fire Pump Engine	0.1	0.1	0.1	0.4	1.9	0.2	0.1
Large Storage Tanks						0.3	
Storage Tanks < 1,000 gallons						0.001	
<b>Total Proposed Emissions (TPY)</b>	23.7	14.5	9.5	40.1	31.2	878.9	0.4
<b>Emissions Increases</b>	23.7	14.5	9.5	40.1	31.2	878.9	0.4
<b>PSD Significant Emission Rate (TPY)</b>	25	15	10	100	40	40	40
<b>PSD Triggered?</b>	No	No	No	No	No	Yes	No

\* Based on industry specific emission factors in lieu of higher State Allowables

Sources subject to PSD must satisfy the following requirements before being allowed to initiate construction:

1. Provide opportunity for public participation in the permitting process relative to the air quality impact the source would have if it were built.
2. Obtain a permit which sets forth emission limitations.
3. Demonstrate that the emissions from the source would not cause or contribute to a violation of the PSD increment or the NAAQS.
4. Apply the best available control technology (BACT), which is defined in terms of an emission limitation, based on the maximum degree of reduction of each pollutant which is determined to be technically and economically achievable for that particular source.
5. Analyze the impairment to visibility, soils, and vegetation that might occur as a result of operation of the source.
6. Analyze the air quality impacts projected due to the growth associated with the facility.
7. Conduct any ambient air quality monitoring necessary to determine the effect of the emissions on air quality.

## **Public Participation**

In order to satisfy the public participation requirement, a copy of the preliminary determination (this engineering analysis and the air quality dispersion modeling analysis) and the permit applications will be made available on the Department's website for at least 30 days of public review. After the 30-day public comment period and within 5 days of the PSD permit issuance, the final determination will be made available on the Department's eFile system. The final determination consists of copies of the signed permits, any comments received during the public comment period, and any responses made to those comments.

## **BACT Determination**

During a PSD review, new and modified sources must be assessed for Best Available Control Technology, or BACT, if their potential emissions increase is significant. BACT is an emission limit based on the maximum pollutant reduction achievable considering energy, economic, and environmental impacts. BACT is determined on a unit by unit, pollutant by pollutant basis. The BACT limit can be no less stringent than any applicable New Source Performance Standard (NSPS), National Emission Standard for Hazardous Air Pollutants (NESHAP), or other applicable standard.

For the proposed project, BACT must be determined for VOC emissions from the continuous lumber drying kilns. GP also provided information regarding BACT for the fire pump engine and large storage tanks. Although considered in the BACT analysis, due to the potential emissions of VOC, BACT would not be necessary for the fire pump engine or large storage tanks. GP utilized the "top-down" approach for the BACT analysis. This approach considers the most stringent control option available and a determination of its technical feasibility for the emission unit in question. If the option is not rejected, the applicant must analyze the option based upon economic, environmental, and energy considerations. Below are the five basic steps of a top-down BACT review procedure as identified by the US EPA in the March 15, 1990, Draft BACT Guidelines:

Step 1. Identify all control technologies

Step 2. Eliminate technically infeasible options

Step 3. Rank remaining control technologies by control effectiveness

Step 4. Evaluate most effective controls and document results

Step 5. Select BACT

### ***Step 1. Identify all control technologies:***

GP examined the feasibility of the following control technologies: regenerative thermal oxidation with use of wet electrostatic precipitation, regenerative catalytic oxidation with use of wet electrostatic precipitation, condensation, carbon adsorption, wet scrubbing, biofiltration, and proper kiln design and operation.

### Regenerative Thermal Oxidation with Use of Wet Electrostatic Precipitator (WESP)

Regenerative Thermal Oxidation (RTO) refers to the complete gas phase combustion of VOC to carbon dioxide and water vapor. Oxidation is achieved by heating the VOC exhaust in the presence of oxygen. Auxiliary fuel (typically natural gas) is almost always required to maintain minimum combustion conditions. An RTO consists of at least two separate chambers packed with ceramic media. The VOC-laden gas enters one hot ceramic bed where the gas is heated to the desired combustion temperature. Auxiliary fuel may be required in this stage, depending on the heat content of the VOCs contained in the inlet gas stream. The gas stream is directed through the other ceramic bed, where the heat released from combustion is recovered and stored in the ceramic bed. The process gas flow then is switched so that the inlet gas stream can be preheated by the heat recovered in the ceramic bed. The RTO is operated using an alternating cycle for the two ceramic beds, recovering up to 95% of the thermal energy generated by the combustion process during normal operation. RTOs have the potential to remove more than 99% of VOCs from a gas stream, depending on the specific VOCs present in the gas stream. Based on GP's knowledge of lumber kiln exhaust gases (as lower VOC concentrations result in lower destruction values), it is assumed that an RTO could potentially achieve up to 97% VOC destruction, as long as the exhaust gas stream did not contain contaminants or other materials that might interfere with the operation of the control system.

RTO performance is affected by the quality of filterable particulate matter (PM) and condensable PM (CPM) contained in the exhaust gas stream. Therefore, to avoid interference from PM or CPM contained in the exhaust gas stream, as much PM and CPM as possible should be removed prior to the exhaust gas entering the RTO. The placement of a WESP ahead of an RTO has been used in the oriented strand board (OSB) industry to remove PM and some CPM as well as VOC emissions from rotary driers. WESPs are used instead of dry ESPs when wet, sticky, or flammable PM and CPM is contained in the exhaust gas stream, making it a preferred method of PM and CPM removal prior to the exhaust gases entering an RTO. PM removal efficiencies of the WESP range from 90 - 99+%, depending upon the design of the WESP and the specific characteristics of the PM contained in the exhaust gas stream. WESPs are not usually designed to remove CPM with the same high control efficiencies as PM.

### Regenerative Catalytic Oxidation with Use of Wet Electrostatic Precipitator (WESP)

Regenerative catalytic oxidizer (RCO) units function similarly to an RTO, except that the heat recovery beds in an RCO contain catalytic media. The catalyst allows for VOC destruction at lower temperatures than in an RTO, typically 500°F to 600°F, which reduces auxiliary fuel usage and materials of construction costs. VOC destruction efficiencies have the potential to be 95% or greater, depending on the specific VOC compounds present in the exhaust gas stream. Based on GP's knowledge of the exhaust gases from a lumber kiln (as lower VOC concentrations result in lower destruction values), it is assumed that an RCO would achieve a minimum VOC destruction efficiency of 90%.

PM removal is even more critical for RCOs than RTOs as the catalyst may be blinded by PM build-up, and as a result, may operate at much lower conversion efficiencies, or if the PM build-up is significant, the catalyst may not work at all to remove VOC emissions.

Additionally, RCOs are sensitive to poisoning from heavy metals present in the exhaust gas stream. As such, it is necessary to remove PM emissions prior to directing the exhaust gases through the RCO. WESPs have the highest PM control efficiency for this type of system, compared to wet scrubbers or high efficiency cyclones. WESPs can have PM removal efficiencies of 90-99+%, depending upon the particle size fraction of the PM material being removed from the exhaust gas stream.

### Carbon Adsorption

Adsorption is the use of a solid material to trap a gas. The core component of a carbon adsorption system is an activated carbon bed contained in a steel vessel. The VOC-laden exhaust gases pass through the bed where the VOC is adsorbed onto the activated carbon while the cleaned gas is exhausted to the atmosphere. The spent carbon is regenerated either at an on-site regeneration facility or by an off-site activated carbon supplier.

The VOC removal efficiency is dependent upon the adsorption capacity for each of the specific organic compounds that make up the exhaust gas stream. In the adsorption process, molecules of a contaminated gas stream are attracted to and accumulate on the surface of the activated carbon. Carbon is a commonly used adsorbent due to its large surface area. While most organic compounds will adsorb on activated carbon to some degree, the adsorption process is most effective on the higher molecular weight and high boiling point compounds. Compounds having a molecular weight over 50 and a boiling point higher than 50°C are good candidates for adsorption.

### Condensation

Condensation systems remove VOC emissions by condensing the VOCs in the gas stream by either increasing pressure or lowering the temperature of the exhaust gases. The condensed VOCs are then destroyed in a separate combustion device or the materials are recovered for sale. Condensation requires that the exhaust stream be cooled to a temperature low enough such that the vapor pressure of the exhaust gases are lower than the VOC concentration of the exhaust gases.

### Biofiltration

In biofiltration, off-gasses containing biodegradable organic compounds are vented under controlled temperature and humidity through a biologically active material. The process uses a biofilm containing a population of microorganisms immobilized on a porous substrate such as peat, soil, sand, or compost. As an air stream passes through the biofilter, the contaminants in the air stream partition from the gaseous phase to the liquid phase of the biofilm. Once contaminants pass into the liquid phase, they become available for the complex oxidative process by the microorganisms inhabiting the biofilm.

Biofilters are most effective in removing water soluble VOC compounds and have demonstrated removal efficiencies for individual hydrophilic compounds such as methanol and formaldehyde that exceed 90%. However, Georgia-Pacific indicated that control of total VOC emissions using biofiltration has shown approximately 10-15% control of total VOCs (carbon basis) based on stack testing at other facilities.

### Wet Scrubbing

Scrubbing of gas or vapor pollutants from a gas stream is usually accomplished in a packed column where pollutants are absorbed by countercurrent flow of a scrubbing liquid. Scrubbing liquid can be water, caustic solution, or other liquid media that will interact to remove targeted compounds. Wet scrubbing is most effective for water soluble VOC compounds such as alcohols. Removal efficiencies for hydrophilic VOCs can exceed 90%, depending on the specific chemical compounds that make up the VOCs in the gas stream. Only VOCs that are soluble in the scrubbing liquid can be removed.

### Proper Kiln Design and Operation

The naturally occurring VOCs in lumber are driven off from the heat used to dry the lumber within the kiln. Lumber is dried to a specific moisture content for quality control purposes. Proper design and operation of the lumber kilns prevents over drying of the lumber that may release additional VOCs to the atmosphere. As a result, GP asserts that proper operation of the kilns and not over-drying the lumber would minimize VOC emissions to the atmosphere.

### ***Step 2. Eliminate technically infeasible options:***

#### Regenerative Thermal Oxidation with WESP

RTO performance can be affected by PM contained in the exhaust gas stream. Depending on the design of the ceramic media contained in the bed, PM buildup could lead to plugging or blocked airflow of the bed resulting in an increase in the pressure drop across the bed. This in turn will require the exhaust fan to work harder and consume more energy to overcome the pressure drop. Fouling of the ceramic media bed with PM reduces the effectiveness of the ceramic media's ability to transfer heat. At the same time, the buildup of PM presents a serious fire hazard (especially in the presence of "stickies" generated by heating the wood).

To minimize the PM build-up on the ceramic media bed, WESPs placed ahead of the RTO is one method currently being used in several GP OSB facilities to control VOC and PM emissions from rotary dryers. GP has determined through experience at other facilities that ceramic media bed fouling is still an issue, even with a WESP situated ahead of the RTO on a direct fired dryer. The bed fouling can lead to a reduced life span of the ceramic media that required complete replacement of the media more frequently than expected. While ceramic media bed fouling over the life of an RTO does not render the operation of a WESP/RTO control system technically infeasible, it does add to the operating cost of the control system unit, which will be addressed under Step 4 of this BACT analysis. ADEM concurs with this determination.

#### Regenerative Catalytic Oxidation with WESP

Particulate matter removal from the incoming gas stream is critical with a RCO as the catalyst may be blinded by buildup of PM and it is sensitive to poisoning by heavy metals in the gas stream. While the build-up of PM on the catalyst may be reversed by burning away the PM, metallic poisoning requires replacement of the catalyst as the metals become chemically bound to the active surface which reduces the total surface area capable of promoting oxidation. Georgia-Pacific discussions with the catalyst vendor indicated that catalytic oxidation using an RCO is not a viable control technology for this



type of exhaust gas stream due to the particulate matter, metals, and acidic content of the exhaust gases, even with the use of a WESP. Based on this, this control technology is considered technically infeasible. ADEM concurs with this determination.

#### Carbon Adsorption

Adsorption systems work on the principle that VOCs within the exhaust gases condense on the surface of the adsorbent, which is usually carbon. Once the activated carbon surface has adsorbed all the VOCs possible, the VOC is desorbed, usually with steam, to regenerate the activated carbon. Humidity affects the adsorption of VOCs. Effectively, the water vapor condensed on the surface of the carbon would compete with and displace the VOCs, greatly reducing the VOC control efficiency of the adsorber.

Although some VOCs can be desorbed with the use of chemical treatment, terpenes, the primary VOC constituent in kiln exhaust gases, must be thermally desorbed. The temperature necessary to desorb terpenes would likely damage the adsorption media. Also, the relatively high exhaust temperatures from kilns as well as the likelihood of sticky buildup plugging the carbon bed would be problems with the application of this control technology. Therefore, this control technology would be a technically infeasible means of VOC control for the proposed kilns. ADEM concurs with this determination.

#### Condensation

Condensation requires that the exhaust leaving the kilns be cooled to a low enough temperature to allow for the VOC to go from a gas phase to liquid phase. The VOC in the kilns' exhaust stream are primarily terpenes; therefore, the temperature at which these compounds would start to become liquid is well below 32°F. At a temperature below 32°F, the water vapor in the exhaust stream would freeze, which would clog the unit. Therefore, this control technology would not be a feasible means of VOC control. ADEM concurs with this determination.

#### Biofiltration

According to Georgia-Pacific, no vendor has designed a biofiltration system to remove VOC emissions from an exhaust gas stream with characteristics similar to those from a lumber kiln. To prevent condensation and a buildup of sticky particulate matter inside the exhaust ductwork between the kiln and control equipment, it would be necessary to heat the kiln exhaust gases to temperatures above that which condensation would occur (>200°F). Exhaust gas stream temperatures well above 105°F would kill the bacteria contained in the filter media of the biofilter and thereby render the system ineffective. Furthermore, the primary VOC constituent, terpenes, are insoluble in water and a biofilter would therefore be ineffective at breaking down terpenes. Additionally, due to the nature of the exhaust gas stream, sticky buildup would likely plug the media in the biofilter bed. For these reasons, biofiltration would be considered technically infeasible. ADEM concurs with this determination.

#### Wet Scrubbing

Wet scrubbing is most effective for exhaust gas streams that contain water soluble VOC compounds such as methanol. However, the primary VOC constituents of kiln exhaust gases, pinenes and terpenes, are not water soluble. Therefore, these constituents would not be easily absorbed in a wet scrubber and the VOC removal efficiency would be low.

In addition, the viscous nature of the sticky particulates in the exhaust gas could easily plug the scrubber absorption media. Therefore, this control technology is considered technically infeasible for the proposed kilns. ADEM concurs with this determination.

#### Proper Kiln Design and Operation

Proper maintenance and operating practices is a technically feasible option for minimizing VOC emissions and is considered further in the BACT determination.

#### ***Step 3. Rank remaining control technologies by control effectiveness:***

Rank	Control Technology	Potential Control Efficiency
1	WESP/RTO	95%
2	Proper Kiln Design and Operation	Base Case

#### ***Step 4. Cost Effectiveness Evaluation of Remaining Control Technologies:***

##### Regenerative Thermal Oxidation with WESP

The application indicated that Georgia-Pacific is not certain whether or not it is technically feasible to capture and route kiln exhaust gases to an air pollution control system. However, Georgia-Pacific considered the use of a WESP followed by a RTO in more detail in an effort to thoroughly examine all control technologies. It was indicated that the costs associated with this control technology may be underestimated due to the difficulty of accurately estimating the costs of a system that has not been demonstrated in practice. Unknown maintenance and operational problems due to the unique characteristics of lumber kiln exhaust gases could result in higher costs than presented in the BACT analysis.

Based on engineering estimates, the cost estimate analysis assumes the Talladega Sawmill would install two WESP followed by an RTO (one WESP/RTO to control CDK-1 and the other WESP/RTO to control CDK-2 and CDK-3). The cost of controlling VOC emissions with a WESP followed by an RTO is estimated at approximately \$12,303 per ton of VOC as carbon (C) (\$9,591 per ton of VOC as WPP1) removed from CDK-1 and \$12,142 per ton of VOC as C (\$9,466 per ton of VOC as WPP1) from CDK-2 and CDK-3 based on the results shown in the detailed cost effectiveness spreadsheet provided in Appendix C.7 This cost effectiveness value is largely due to the cost of heating the lumber kiln exhaust air to a temperature of approximately 200°F to prevent condensation and the formation of “stickies” in the exhaust ductwork exiting the kiln. Due to the estimated cost of this control system, Georgia-Pacific indicated that it does not believe that it is economically feasible to use this control technology.

#### Proper Kiln Design and Operation

According to the application, the only economically cost effective control technology for removing VOC emissions from a continuous lumber kiln is the use of “proper design and operating practices”. Since this control option is the top remaining BACT control

technology, after showing that other “add-on” control systems were not technically or economically feasible, no cost analysis was performed.

**Step 5. Select BACT:**

GP proposes the following emission level as BACT:

Pollutant	BACT Determination	BACT Emission Limit	Equivalent Emissions
VOC	Proper Kiln Design and Operation	5.49 lb/MBF, as WPP1 VOC*	878.4 TPY (at max. capacity 320 MMBF/yr)

\*“WPP1 VOC” is an acronym for Wood Products Protocol 1 VOC. WPP1 VOC refers to VOC emissions expressed in accordance with the document “Interim VOC Measurement Protocol for the Wood Products Industry – July 2007.” This EPA document established procedures and emission measurement methods to approximate VOC emissions for determining applicability with Federal programs and to establish consistency across State programs for the forest products industry.

A search of EPA RACT/BACT/LAER Clearinghouse indicated that no facilities are utilizing add-on controls for lumber drying kilns, and the proposed VOC emission limit of 5.49 lb/MBF (as WPP1 VOC) is slightly higher than other BACT determinations for continuous kilns in the wood products industry. However, none of the BACT limits in the RBLC for continuous kilns have been verified by testing.

The Air Division concurs that proper kiln design, operation, and maintenance, and an emission limit of 5.49 lb/MBF (as WPP1 VOC) represents BACT for the proposed kilns.

GP identified the average moisture content of the dried lumber at the planer mill as a measurable parameter to be used in minimizing VOC emissions from the kilns. VOC emissions would be minimized by not over-drying the lumber, setting a minimum moisture content parameter of approximately 12%. Due to seasonal variability of the wood moisture content and drying times, GP has proposed compliance with a rolling 12-month average for comparison to the established moisture content target. Also, the Air Permits for the kilns would include a requirement to develop and implement a preventive maintenance plan within 180 days of startup of the first continuous kiln.

**Modeling**

The proposed sawmill would only be significant for VOC emissions; therefore, no modeling is required. However VOC is recognized as a precursor to ozone, which has an established NAAQS. GP provided representative ozone data in lieu of pre-construction ozone ambient monitoring analysis for ozone emissions using an existing monitoring station operated by ADEM. The ozone monitoring site that best represents the ozone concentration in the region surrounding GP is approximately 28 miles away located in Leeds, Jefferson County, Alabama, Station 01-073-1010. The increase in ozone formation from the proposed GP sawmill is expected to be relatively insignificant, representing an approximate 2.7% increase compared to the existing inventory. Based on the Talladega County surrounding area’s attainment status, along with the projected VOC emissions presenting a minor increase in total VOC emissions, there is no expected affect on the attainment status of the region.

### **Additional Impacts**

Additional impact analyses assess the impacts of air, ground, and water pollution on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant resulting from the modification under review and from associated growth. The depth of the analysis depends on existing air quality, the quantity of emissions, and the sensitivity of local soils, vegetation, and visibility in the source's impact area. GP addressed the impacts of the proposed project with respect to growth, soils and vegetation, and visibility.

GP cited an EPA document, *A Screening Procedure for the Impacts of Air Pollution on Plants, Soils, and Animals*, to indicate that the relevant pollutants for soils and vegetation are NO<sub>2</sub>, SO<sub>2</sub>, and CO. The project triggers a PSD review only for VOC and does not have a significant net emissions increase of NO<sub>2</sub>, SO<sub>2</sub>, or CO. As such, no adverse impacts on soils and vegetation are anticipated.

Regarding growth, although the Talladega Sawmill will generate jobs, the work force will likely be no greater than the workforce associated with the GP plywood plant which stopped operations in 2008. There will also be some long-term growth (i.e., general commercial, residential, industrial or other secondary growth in the area) expected as a result of the proposed Talladega Sawmill. However, the growth in the area is expected to be gradual. Therefore, no analysis of secondary impacts from associated growth is warranted for this project.

There are four Class I areas located within 300 km of the proposed sawmill, Sipsey Wilderness Area being the closest, located approximately 160 km from the proposed GP sawmill. The relevant pollutants for visibility and deposition are PM, NO<sub>x</sub>, and SO<sub>2</sub>. The project triggers a PSD review only for VOC and does not have a significant net emissions increase of PM, NO<sub>x</sub>, or SO<sub>2</sub>. Because this project would not cause significant increases of PM, NO<sub>x</sub>, or SO<sub>2</sub> that may affect visibility or deposition and for which PSD Class I increments have been established, no adverse impact on the Sipsey Wilderness Area (or any other Class I Area within 300 km) is anticipated.

### **Applicability: State Regulations**

#### **Particulate Matter**

##### *Fuel Burning Equipment*

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

##### *Process Industries – General*

All proposed units and processes, except for the fire pump engine, would be subject to the State particulate matter emission standards for process industries as provided in ADEM Admin. Code r. 334-3-4-.04(1). Additionally, to avoid triggering PSD for particulate matter (PM) due to the State allowable based on process weight, GP requested to limit the PM allowable emissions from all processes (see appendix A for detailed emissions calculations). No limits for PM<sub>10</sub> or PM<sub>2.5</sub> were requested.

### Visible Emissions

All proposed units and processes would be subject to the State visible emission standards of ADEM Admin. Code r. 335-3-4-.01(1), 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).

### Sulfur Dioxide

The proposed CDKs and fire pump engine would be 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, the potential emissions using AP-42 emission factors are used in this analysis for applicability purposes under the Title V and PSD regulations.

## **Emission Testing and Monitoring**

I recommend that no emission testing be required for the proposed kilns at this time because it is expected that the kilns would be able to comply with the proposed BACT limitation, testing for continuous kilns is not easily conducted, and there are no emission control devices. I also recommend that no emission testing be required for the proposed planer mill cyclofilter or the sawmill chip cyclone at this time because calculations indicate the capability of complying with the State allowable particulate emission rates and the requested synthetic minor emission limits. If emission problems are observed in the future from these emission sources, testing may be required at that time.

To ensure that the maximum capacity of the proposed kilns are not exceeded, GP would be required to calculate the kiln production on a monthly and 12-month rolling total basis, to be updated within ten (10) days of the end of each calendar month.

To ensure proper operation of the green end processes, sawmill, chip cyclone, planer mill, and cyclofilter, minimum weekly visual observations would be required, with corrective action required to be initiated as soon as practicable but not longer than 24 hours if visible emissions are determined to be greater than normal. Minimum annual physical inspections would be required.

## **Recordkeeping and Reporting**

### *Recordkeeping*

GP would be required to maintain records of its actions taken to comply with its proper maintenance and operating practices. Records of weekly visual observations of the cyclofilter and cyclone would be required. Records of lumber moisture content and lumber production would also be required. These records shall be maintained on-site in a permanent form readily available for inspection.

### *Reporting*

GP would be required to submit Semiannual Monitoring Reports for the proposed processes and units, which would include a certification that all emission monitoring and proper maintenance

and operating practices were accomplished as required during the reporting period, and if not, describe the date and reason any required action was not accomplished.

### **Conclusions and Recommendations**

This analysis indicates that this facility would meet the requirements of all applicable federal and State rules and regulations. Therefore, I recommend that GP be issued the following Air Permits for the proposed sawmill facility, pending any comments received during the 30-day public comment period:

X001 - Sawmill and Green End Operations [SMS], which includes:

- Green End Operations (Log Debarker [LD], Log Bucking [LB]), Bark Conveyance to Bark Storage Bin (BC)
- Sawmill (SM), Chipper Cyclone (CHC), Chip Conveyance (CC) to Chip Storage Bin, or Chip Pile (CP), Sawdust Conveyance (SDC) to Sawdust Storage Bin
- Haul Roads (RD) for Off-site Shipment

X002 - Two (2) 120,000 MBf/yr Direct-fired Lumber Dry Kilns (CDK1 & CDK2) with a 40 MMBtu/hr Natural Gas-fired Burner each, and One (1) 80,000 MBf/yr Direct-fired Lumber Dry Kiln (CDK3) with a 30 MMBtu/hr Natural Gas-fired Burner [PSD/SMS]

X003 - Planer Mill with Cyclofilter (PM) and Planer Shavings Conveyance to Shavings Storage Bin (SC) [SMS]

X004 - 250 Hp Cummins Compression Ignition Diesel-fired Fire Pump Engine – Emergency Fire Pump [NESHAP, Subpart ZZZZ]

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Chris Ailor  
Chemical Branch  
Air Division

**DRAFT**  
Date

# **Appendix A**

## **Proposed Permits**

## AIR PERMIT

**PERMITTEE:** GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
**FACILITY NAME:** TALLADEGA SAWMILL  
**LOCATION:** TALLADEGA, TALLADEGA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
309-0075-X001	Sawmill and Green End Operations [SMS], which include: <ul style="list-style-type: none"><li>• Green End Operations (Log Debarker [LD], Log Bucking [LB]), Bark Conveyance (BC) to Bark Storage Bin</li><li>• Sawmill (SM), Chipper Cyclone (CHC), Chip Conveyance (CC) to Chip Storage Bin or Chip Pile (CP), Sawdust Conveyance (SDC) to Sawdust Storage Bin</li><li>• Haul Roads (RD) for Off-site Shipment</li></ul>

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol. and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

**ISSUANCE DATE:** DRAFT



**GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
TALLADEGA, ALABAMA  
(PERMIT NO. 309-0075-X001)  
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
6. The process for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
7. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
8. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.
9. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
10. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

**PERMIT NO. 309-0075-X001**

11. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
12. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
13. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

14. Should Air Division personnel make a determination that excessive emissions are occurring from this process such that offsite impacts are noted, the permittee shall investigate and implement additional emission controls or operational measures to correct the problem. If the permittee would need to install additional emission control equipment and/or institute additional permanent operational measures to address the problem, the permittee shall notify the Air Division in writing within 10 working days of determining that additional controls are needed.
15. This process shall be operated at all times using the best available operating and management practices so that provisions of the Department's rules and regulations shall not be violated.
16. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner

as to cause the Department's rules and regulations applicable to open burning to be violated.

17. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The Permittee shall not cause or permit the emissions of particulate matter in any 1-hour period from this process to exceed the amount determined by use of the following equation:  
$$E=3.59P^{0.62} \text{ (P < 30 tons per hour)}$$

OR

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

Where:      E=Emissions in pounds per hour  
                P=Process weight in tons per hour

20. The Permittee shall not cause or allow these sources of particulate emissions to discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall these sources discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9.

### **Emission Monitoring**

21. While the process is operating, someone familiar with the process shall observe the log debarker (LD), log bucking (LB), conveyors to the bark storage bin (BC), sawmill (SM), chipper cyclone (CHC), conveyors to chip storage bin (CC) or chip pile (CP), conveyors to the sawdust storage bin (SDC), and Haul Roads (RD) a minimum of once weekly during daylight hours for greater than normal emissions as determined by previous observations. Whenever observed emissions are greater than normal, the permittee shall initiate corrective action 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.

### **Recordkeeping and Reporting Requirements**

22. The permittee shall maintain records, including the dates and times, of all weekly observation results, corrective actions taken, and emissions-related maintenance performed. The permittee shall maintain all required records in a permanent form suitable for inspection and shall be readily available for inspection upon request. The permittee shall retain each record for a period of five (5) years from the generation of each record.

23. The Permittee shall submit a Semiannual Monitoring Report for Sawmill and Green End Operations to the Air Division, 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>). This report shall certify that the weekly observations were accomplished as required and note the nature and date of any episodes of greater-than-normal emissions observed and corrective or emissions-related maintenance actions taken. If a weekly observation was not accomplished, describe the date and reason any required action was not accomplished.
24. The permittee shall submit an Annual Compliance Certification for Sawmill and Green End Operations to the Air Division no later than 60 days following the anniversary of the issuance of this permit. This compliance certification shall include the following:
  - (a) The identification of each term or condition of this permit that is the basis of the certification.
  - (b) The compliance status, whether continuous or intermittent.
  - (c) The method(s) used for determining the compliance status of the source, currently and over the reporting period.
  - (d) Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

DRAFT  
Date

## AIR PERMIT

**PERMITTEE:** GEORGIA-PACIFIC WOOD PRODUCTS LLC  
**FACILITY NAME:** TALLADEGA SAWMILL  
**LOCATION:** TALLADEGA, TALLADEGA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
309-0075-X002	Two (2) 120,000 MBF/yr Continuous Lumber Dry Kilns (CDK1 & CDK2) with a 40 MMBtu/hr Natural Gas-Fired Burner each, and One (1) 80,000 MBf/yr Direct-fired Lumber Dry Kiln (CDK3) with a 30 MMBtu/hr Natural Gas-fired Burner (PSD/SMS)

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol. and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

**ISSUANCE DATE:** DRAFT

**GEORGIA-PACIFIC WOOD PRODUCTS LLC  
TALLADEGA, ALABAMA  
(PERMIT NO. 309-0075-X002)  
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The Permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

14. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the Permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
19. The Permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
20. The Permittee shall not cause or permit the emissions of particulate matter in any 1-hour period from this process to exceed the amount determined by use of the following equation:  
$$E=3.59P^{0.62} \text{ (P < 30 tons per hour)}$$

OR



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

Where: E=Emissions in pounds per hour  
P=Process weight in tons per hour

21. The Permittee shall not cause or allow these sources of particulate emissions to discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall these sources discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9.

#### **PSD Synthetic Minor Source Limitation**

22. The Permittee shall not cause or allow the particulate matter emission rate from kilns 1, 2, or 3 (Emission Sources CDK1, CDK2, and CDK3) to exceed 0.33 lb/hr, 0.33 lb/hr, and 0.23 lb/hr, respectively, as measured in accordance with 40 CFR Part 60, Appendix A, Method 5. Alternate test methods may be used provided prior approval by the Air Division is granted.

#### **BACT Requirements**

23. The Permittee shall not cause or allow the VOC emissions from the kilns to exceed 5.49 lb/MBF each as WPP1 VOC.
24. The Permittee shall measure and record the moisture content of the lumber as it exits the planer machine. The 12-month rolling average moisture content shall be  $\geq 12\%$ .
25. Within six 180 days of issuance of Temporary Authorization to Operate these kilns, the Permittee shall develop, implement, and submit to the Air Division a preventive maintenance plan for the kilns.

#### **Monitoring, Recordkeeping, and Reporting**

26. The Permittee shall maintain records documenting its compliance with the preventive maintenance plan required by Proviso 25 of this permit.
27. If any of the kilns should exceed an applicable limit at any time, the Permittee shall notify the Air Division in writing within two working days of determining that the exceedance occurred.
28. The Permittee shall calculate and record the average monthly and 12-month rolling average lumber moisture content. Within ten (10) days of the end of each calendar month, records of the average lumber moisture content for the last calendar month shall be recorded and the rolling 12-month average updated.
29. The Permittee shall maintain records of total kiln production, including monthly production and 12-month rolling totals. Within ten (10) days of the end of each calendar month, records of the total throughput for the last calendar month shall be recorded and the rolling 12-month total updated.

**PERMIT NO. 309-0075-X002**

30. The Permittee shall retain all required records in a permanent form suitable and readily available for inspection for a period of five (5) years from the date of generation of each record.
31. The Permittee shall submit a Semiannual Monitoring Report for the kilns and burners to the Air Division, 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>). This report shall include a certification that all preventive maintenance activities were accomplished as required during the reporting period, and if not, describe the date and reason any required action was not accomplished.
32. The Permittee shall submit an Annual Compliance Certification to the Air Division no later than 60 days following the anniversary of the issuance of this permit. The compliance certification shall include the following:
  - (a) The identification of each term or condition of this permit that is the basis of the certification.
  - (b) The compliance status, whether continuous or intermittent.
  - (c) The method(s) used for determining the compliance status of the source, currently and over the reporting period.
  - (d) Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

DRAFT  
Date

## AIR PERMIT

**PERMITTEE:** GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
**FACILITY NAME:** TALLADEGA SAWMILL  
**LOCATION:** TALLADEGA, TALLADEGA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
309-0075-X003	Planer Mill Operations with Cyclofilter (PM) and Planer Shavings Conveyance to Shavings Storage Bin (SC) [SMS]

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol. and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

**ISSUANCE DATE:** DRAFT

**GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
TALLADEGA, ALABAMA  
(PERMIT NO. 309-0075-X003)  
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The Permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

14. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the Permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The Permittee shall not cause or permit the emissions of particulate matter in any 1-hour period from this process to exceed the amount determined by use of the following equation:

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

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

19. The Permittee shall not cause or allow these sources of particulate emissions to discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall these sources discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9.

**PERMIT NO. 309-0075-X003**

20. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
21. The Permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

**PSD Synthetic Minor Source Limitation**

22. The Permittee shall not cause or allow the particulate matter emission rate from the cyclofilter exhaust (PM) to exceed 0.37 lb/hr, as measured in accordance with 40 CFR Part 60, Appendix A, Method 5. Alternate test methods may be used provided prior approval by the Air Division is granted.

**Emission Monitoring**

23. While the process is operating, someone familiar with the process shall visually observe the cyclofilter exhaust (PM) at least weekly during daylight hours for the presence of visible emissions.
24. While the process is operating, someone familiar with the process shall visually observe the planer shavings conveyors and storage bin (SC) at least weekly during daylight hours for greater than normal emissions as determined by previous observations of normal operations.
25. Whenever observed emissions are greater than normal from the planer shavings conveyors or storage bin (SC), or if any visible emissions are observed from the planer mill cyclofilter exhaust (PM), 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 (SC) or eliminated (PM).
26. The cyclofilter shall be physically inspected for proper operation and cleaned, if needed, at least annually, but more frequently if visible emissions are observed.

**Recordkeeping and Reporting Requirements**

27. The Permittee shall maintain records, including dates, times, and results of all visual observations; corrective actions taken; and cyclofilter inspections, cleanings, and emissions-related maintenance in a permanent form suitable for inspection for a period of at least five (5) years from the date of generation of each record. The records shall be made available for inspection upon request.
28. The Permittee shall submit a Semiannual Monitoring Report for the Planer Mill Operations to the Air Division, 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:
  - a) Certify whether the emission monitoring requirements were accomplished as required, and if not, describe the date and reason any required monitoring was not accomplished;

- b) Provide the date, time, and duration of any instance that greater than normal emissions were observed from the planer mill or planer shavings storage bin, or any instance of the presence of visible emissions from the cyclofilter exhaust;
  - c) Provide the nature and date of any corrective actions taken or preventative measures adopted following an observation of greater than normal emissions, or the presence of visible emissions from the cyclofilter exhaust; and
  - d) Provide the dates of any physical inspections and/or cleanings of the cyclofilter performed during the reporting period.
29. The Permittee shall submit an Annual Compliance Certification to the Air Division no later than 60 days following the anniversary of the issuance of this permit. The compliance certification shall include the following:
- a) The identification of each term or condition of this permit that is the basis of the certification.
  - b) The compliance status, whether continuous or intermittent.
  - c) The method(s) used for determining the compliance status of the source, currently and over the reporting period.
  - d) Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

DRAFT  
Date



## AIR PERMIT

**PERMITTEE:** GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
**FACILITY NAME:** TALLADEGA SAWMILL  
**LOCATION:** TALLADEGA, TALLADEGA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
309-0075-X004	Emergency 250 bHp Cummins 60522251, Combustion Ignition, Diesel-fired Reciprocating Internal Combustion Engine (NESHAP, ZZZZ)

*In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol. and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

**ISSUANCE DATE:** DRAFT

**GEORGIA-PACIFIC WOOD PRODUCTS, LLC  
TALLADEGA, TALLADEGA COUNTY, ALABAMA  
(PERMIT NO. 309-0075-X004)  
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shut down shall be reported to the Air Division at least 24 hours prior to the planned shutdown, **unless accompanied by the immediate shutdown of the emission source.**
7. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
8. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
9. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
10. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

11. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
12. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
13. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

14. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
15. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge 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%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.
16. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

17. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

**National Emissions Standards for Hazardous Air Pollutants for  
Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ**

18. This engine is classified as an existing, emergency, combustion ignition engine less than 500 hp located at a major source of hazardous air pollutants. The applicable requirements include, but may not be limited to, the following:

(a) *Emission/Operating Standards.*

1. The permittee shall comply with the applicable requirements of 40 CFR §63.6602 and Table 2c to Subpart ZZZZ, which include, but may not be limited to:
  - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
  - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
2. In accordance with 40 CFR §63.6625(h), during periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
3. If a unit is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.
4. The Permittee shall not operate this unit except as provided in 40 CFR §63.6640(f)(1) through (f)(3), which include but may not be limited to:
  - i. Emergency situations;
  - ii. Maintenance checks and readiness testing, not to exceed 100 hours per year; and

- iii. 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).

(b) *Monitoring.*

1. In accordance with 40 CFR §63.6625(e)(2), the Permittee shall operate and maintain this unit according to the manufacturer's emission-related written instructions or develop a maintenance plan that provides for, to the extent practicable, the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
2. In accordance with 40 CFR §63.6605(b), GP is required to operate and maintain the engine in a manner consistent with safety and good air pollution control practices for minimizing emissions.
3. In accordance with 40 CFR §63.6625(f), the permittee is required to install a non-resettable hour meter if one is not already installed.

(c) *Recordkeeping and Reporting.*

1. The Permittee shall keep records of the operation and maintenance of the unit in accordance with 40 CFR §63.6655 and Table 6 of Subpart ZZZZ. At a minimum, these records shall include:
  - i. For each period of operation, the length of operation and the reason the engine was in operation during that time. For periods of operation designated as “emergency operation,” the records shall reflect what classified the operation as emergency;
  - ii. The total number of hours the engine was operated during a calendar year subtotaled by the reason the engine was in operation;
  - iii. The dates of each oil and filter change with the corresponding hour on the hour meter;
  - iv. The dates of each inspection and replacement of air cleaners, hoses, and belts with the corresponding hour on the hour meter; and
  - v. The dates and nature of other emission-related repairs and maintenance performed.
2. The Permittee shall maintain all reports (with supporting documentation), records pertaining to continuous compliance and records of all maintenance conducted must be maintained in a form suitable and readily available for expeditious review for a period of 5 years from the date of each record or report. They must be maintained on-site for at least 2 years and may be kept off-site for the remaining 3 years.

3. In accordance with 40 CFR §63.6675 and Footnote 1 of Table 2c of Subpart ZZZZ, the Permittee shall report to the Air Division any failure to perform a work practice on the schedule required, including instances when the work practice standard, including instances when the work practice standard was not performed due to emergency operation or unacceptable risk under federal, state, or local law. The Permittee shall submit the report within two working days of the deviation and shall provide an explanation as to why the work practice requirement was not performed. The management practice should be performed as soon as practicable after the deviation.

**Recordkeeping and Reporting**

19. The Permittee shall submit a Semiannual Monitoring Report for this kiln to the Air Division, 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>). This report shall include a certification that all proper operating and maintenance practices were accomplished as required during the reporting period, and if not, describe the date and reason any required action was not accomplished.
20. The Permittee shall submit an Annual Compliance Certification to the Air Division no later than 60 days following the anniversary of the issuance of this permit. The compliance certification shall include the following:
  - (a) The identification of each term or condition of this permit that is the basis of the certification.
  - (b) The compliance status, whether continuous or intermittent.
  - (c) The method(s) used for determining the compliance status of the source, currently and over the reporting period.
  - (d) Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**DRAFT**

Date