Facility Name: **Interfor U.S. Inc. – Baxley Sawmill**
City: Baxley
County: Appling
AIRS #: 04-13-001-00005

Application #: TV-46293
Date Application Received: April 7, 2017
Permit No: 2421-001-0005-V-06-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Facility Identification

1. Facility Name:

   Interfor U.S. Inc. – Baxley Sawmill

2. Parent/Holding Company Name

   International Forest Products Limited

3. Previous and/or Other Name(s)

   Rayonier Baxley Sawmill
   Rayonier Wood Products, LLC – Baxley Sawmill

4. Facility Location

   1830 Golden Isles East, Baxley, Georgia 31513

5. Attainment, Non-attainment Area Location, or Contributing Area

   Interfor U.S. Inc. – Baxley Sawmill (hereinafter "facility") is located in Appling County, which is in attainment for all criteria pollutants.

B. Site Determination

There are no applicable issues with regard to the site determination. There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
2421-001-0005-V-05-0	May 7, 2013	Title V Permit for ownership change from Rayonier Wood Products, LLC to Interfor U.S. Inc.
2421-001-0005-V-05-1	May 14, 2013	Title V Permit Amendment for converting Kiln KL02 into a continuous kiln and removal of Kiln KL03 and Boiler PB01.

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
2421-001-0005-V-05-2	May 30, 2014	502(b)(10) Permit for adding a baghouse to control emissions from the sawmill process group (ID No. SM01).
2421-001-0005-V-05-3	January 21, 2015	502(b)(10) Permit for repairing and updating Boiler PB02.
2421-001-0005-V-05-4	May 18, 2017	TV Permit Amendment and PSD Permit for changing the existing BACT limit for the three kilns and removing the existing PSD avoidance limit.

D. Process Description

1. SIC Codes(s)

   2421

   The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

   Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

   Interfor U.S. Inc. – Baxley Sawmill produces dimensional lumber.

3. Overall Facility Process Description

   <u>Log Preparation</u>

   Southern yellow pine logs of tree length are received by trucks and are stored on log pads. The logs are then sawn to desired length, debarked and scanned for metal. Bark is conveyed to a fuel house for the boiler. The pieces of the log, which are not utilized for lumber, are chipped and sold to paper mills.

Sawmill

Sawmills in Group SM01 cut the logs into dimensioned lumber. The sawmill equipment includes one set of twin band saws, a chipping edger, and a trimmer. Trim blocks and edger strips are chipped and sold to paper mills.

Lumber Drying Kilns

The lumber is dried in three lumber dry kilns. One kiln (ID No. KL01) operates in batch mode while the other two kilns (ID Nos. KL02 and KL04) operates in continuous mode. Kiln KL02 is the only direct-fired kiln.

Planer Mill

The dried lumber is planed in the planer mill (ID No. PM01), sorted by length, size and grade, and transported by truck or rail for delivery to the customer.

Boiler

The facility uses a Hurst boiler (ID No. PB02) to generate steam for Kilns KL01 and KL04. It is capable of burning wood fuel (green sawdust) and used oil.

Byproducts

By-products produced at the facility are wood chips, sawdust, bark, and shavings. Waste wood that is not fired in the boiler is sold off-site.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

Interfor U.S. Inc. – Baxley Sawmill is located in Appling County, an attainment area for all criteria pollutants. The facility is a major source under PSD regulations because it emits more than 250 tons per year (tpy) of volatile organic compounds (VOC). The facility has undergone two PSD reviews in the past, one in 1998/1999 and the other in 2017. Please refer to Section III.B. of this Narrative for more detailed discussions.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Yes			✓
PM_{10}	Yes			✓
$PM_{2.5}$	Yes			✓
SO_2	Yes			✓
VOC	Yes	✓		
NO_x	Yes			✓
CO	Yes	✓		
TRS	N/A			
H_2S	N/A			
Individual HAP	Yes	✓		
Total HAPs	Yes	✓		
Total GHG	Yes			✓

According to the preliminary determination / narrative for PSD/Title Permit Amendment No. 2421-001-0005-V-05-4, the following table summarizes the facility-wide potential-to-emit (PTE) for each criteria pollutants, single and combined hazardous air pollutants (HAP), and total greenhouse gases (Total GHG).

Table 3: Facility-wide PTE's (tpy)

Pollutant	3 Kilns	Hammer Mill	Planer Mill	Boiler PB02	Total
NOx	14.21	0	0	39.99	54.20
CO	22.35	0	0	99.86	**122.2**
PM	17.50	4.818	24.53	14.69	61.54
PM_{10}	13.00	4.818	14.45	14.69	46.96
$PM_{2.5}$	12.38	0	0	14.69	27.07
VOC	500.0	0	0	4.542	**504.5**
SO_2	3.285	0	0	6.680	9.965
Single HAP (Methanol)	25.64	0	0	0.1956	**25.84**
Combined HAP	33.97	0	0	0.5437	**34.51**
Total GHG	27,540	0	0	55,990	83,530

According to Table 3 above, the facility is major under Title V of 1990 CAAA for carbon monoxide (CO), VOC, single and combine HAP emissions.

3. MACT Standards

Since the facility is a major source for single and combined HAP, the facility is subject to 40 CFR 63 Subpart DDDD "National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products" and Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters." Please refer to Section III.B. of this Narrative for more detailed discussions.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	Yes
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

None applicable.

C. Compliance Status

None applicable.

D. Permit Conditions

None applicable.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
PB02	Hurst Power Boiler Hurst Boiler Inc. Model H-7500-200 Capacity = 61 MMBtu/hr Installed on September 1, 1988 Fuel: Wood Waste (Green Sawdust) Used Oil	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)2.	3.2.4, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6, 3.3.7, 3.3.8, 3.3.9, 3.4.2, 3.4.4, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9, 5.2.1, 5.2.2, 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.9, 6.1.7, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.12, 6.2.13, 6.2.14, 6.2.15, 6.2.16, 6.2.17, 6.2.18	HMC1	Multiclone
				HESP	Electrostatic Precipitator
SM01	Sawmill Process Group	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.	3.4.1, 3.4.3, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 6.1.7	CY01	Cyclone
				CY02	Cyclone
				CY03	Cyclone
				BH02	Baghouse
PM01	Planer Mill Capacity = 73 tons/hr Installed in 1995	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.	3.2.3, 3.4.1, 3.4.3, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 6.1.7	CY04	Cyclone
				CY05	Cyclone
				PBH1	Baghouse
KL01	Lumber Dry Kiln No. 1 Indirect Steam Heated Batch Drying Kiln Capacity = 44 MMbf/yr Installed in 1974 Reconstructed in 2000	40 CFR 52.21 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.	3.2.1, 3.3.1, 3.4.1, 3.4.3, 6.1.7, 6.2.1, 6.2.2, 6.2.3	None	None
KL02	Lumber Dry Kiln No. 2 Direct-fired Continuous Drying Kiln Capacity = 103 MMbf/yr Converted to Continuous Operation in 2013	40 CFR 52.21 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.	3.2.1, 3.2.2, 3.2.5, 3.3.1, 3.4.1, 3.4.3, 6.1.7, 6.2.1, 6.2.2, 6.2.3	None	None
KL04	Lumber Dry Kiln No. 4 Indirect Steam Heated Continuous Drying Kiln Capacity = 103 MMbf/yr Installed in 1990 Converted to Continuous Operation in 2011	40 CFR 52.21 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.	3.2.1, 3.3.1, 3.4.1, 3.4.3, 6.1.7, 6.2.1, 6.2.2, 6.2.3	None	None

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

B. Equipment & Rule Applicability

Emission and Operating Caps:

PSD Avoidance Limits and PSD BACT Limits:

As discussed previously, Interfor U.S. Inc. – Baxley Sawmill is located in Appling County, an attainment area for all criteria pollutants, and is a major source under PSD regulations for VOC. The facility has undergone two PSD reviews in the past, one in 1998/1999 and the other in 2017. Below lists the major PSD review or PSD avoidance events of the facility.

a. Application No. 10923 Dated September 24, 1998

The facility submitted the first PSD application, No. 10923, for the following:

- The retroactive PSD review for Boiler PB02 (installed in 1988), Kilns KL01 (installed pre-PSD), KL02 (installed in 1987), KL03 (installed in 1987), and KL04 (installed in 1990).

- The construction and operation of Kilns KL05 and KL06 (which were never built).

During the review of Application No. 10923, the Division determined that the kilns would emit only VOC emissions, while the boiler would emit all criteria pollutants. The facility took the following PSD avoidance limits and conducted a VOC PSD review as follows:

- Nitrogen oxides (NOx), CO, and fine particulate matter (PM_{10}) PSD avoidance limits for Boiler PB02. These are included in Condition 3.2.4 of the proposed Title V renewal permit.

- Particulate matter (PM/PM_{10}) PSD avoidance limits for Planer Mill PM01. These are included in Condition 3.2.3 of the proposed Title V renewal permit.

- A VOC PSD review that resulted in a VOC BACT limit for Kilns KL01 through KL04, 219 million board feet per year (MMbf/yr) in order to minimize VOC emissions. This limit was later changed by PSD/Title V Permit Amendment No. 2421-001-0005-V-05-4, which was issued due to Application No. 42931.

b. Application No. 21279 Dated July 2, 2012

The facility submitted Application No. 21279 for Converting Batch Kiln KL02 into a direct fired continuous kiln. The facility avoided a PSD review by accepting a VOC PSD avoidance cap, 352.7 tons per year (tpy), for its kilns (ID Nos. KL01, KL02, and KL04). This limit was later revoked by PSD/Title V Permit Amendment No. 2421-001-0005-V-05-4, which was issued due to Application No. 42931.

c. Application No. 42931 Dated November 10, 2016

The facility submitted the second PSD Application (No. 42931), a retroactive PSD review for the Kiln KL02 Conversion Project, with the following requests:

- Change the VOC BACT limit specified in existing Condition 3.2.1 of Title V Permit No. 2421-001-0005-V-05-0 and existing Condition 3.2.4 of Title V Permit Amendment No. 2421-001-0005-V-05-1.

- Remove the VOC PSD avoidance limit (352.7 tpy VOC) specified in existing Condition 3.2.5 of Title V Permit Amendment No. 2421-001-0005-V-05-1.

A new VOC BACT annual throughput limit replaced the existing VOC BACT limit and the VOC PSD avoidance limit; it is now included in Condition 3.2.1 of the proposed Title V renewal permit.

Also, another VOC BACT work practice requirement has been added due to this PSD review. This is included in Condition 3.2.2 of the proposed Title V renewal permit.

GA State Requirement:

Since Kiln KL02 was converted to a direct fired continuous kiln, and it burns waste wood only, Condition 3.2.5 of the proposed Title V renewal permit specifies KL02's fuel type.

Rules and Regulations Assessment:

40 CFR 60 Subpart Dc – "Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units" (Not Applicable)

Please note that Boiler PB02 is not subject to 40 CFR 60 Subpart Dc because it was constructed prior to June 9, 1989.

40 CFR 63 Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products

According to Tables 2 and 3 of this Narrative, the facility is major for single HAP (methanol) and combined HAP. According to 40 CFR 63.2231(a) and (b), the facility is subject to 40 CFR 63 Subpart DDDD, which is often referred to as the Plywood MACT, because it is a plywood and composite wood products (PCWP) manufacturing facility that manufactures kiln-dried lumber at a HAP major source. According to 40 CFR 63.2232(b), the lumber dry kilns (ID Nos. KL01, KL02, and KL04) are affected sources. Please note that the kilns are not subject to any compliance options specified in Tables 1A and 1B to Subpart DDDD, any operating requirements specified in Table 2 to Subpart DDDD, or any work practice requirements specified in Table 3 to Subpart DDDD. According to 40 CFR 63.2252, the facility is only subject to the initial notification requirements specified in 40 CFR 63.9(b). The initial notification requirements were already complied with; therefore, the facility is considered to be in full compliance with the Plywood MACT.

The proposed Title V renewal permit only includes Condition 3.3.1 that subjects Kilns KL01, KL02, and KL04 to all applicable provisions of 40 CFR 63 Subpart A and Subpart DDDD.

40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

According to 40 CFR 63.7485, the Hurst Power Boiler (ID No. PB02) is subject to 40 CFR 63 Subpart DDDDD because it is an industrial boiler located at a major source of HAP. PB02 was installed on September 1st, 1988; per 40 CFR 63.7490(b) and (d), PB02 is an existing boiler because it was installed prior to June 4, 2010. According to 40 CFR 63.7495(c)(2), the facility must comply with all applicable Boiler MACT requirements by January 31, 2016. Below includes the background information of Boiler PB02.

Table 4: Boiler Background Information				
ID No.	Capacity	Installation Date	Boiler Type	
PB02	61 MMBtu/hr	9/1/1988	Stokers/sloped grate/others designed to burn wet biomass fuel.	40 CFR 63.7499(i)

40 CFR 63.7500 subjects Boiler PB02 to the following emission limits and work practice standards that were specified in Table 2 and Table 3 to 40 CFR 63 Subpart DDDDD. Per the facility's consultant, Mr. Jeff Davis, the facility does not wish to keep the alternative output-based emission limits.

Table 5: Boiler Emission Limits		
Pollutant	PB02	Source/Citation
Hydrogen Chloride (HCl)	2.2E-02 lb/MMBtu	Item 1.a. of Table 2
Mercury (Hg)	5.7E-06 lb/MMBtu	Item 1.b. of Table 2
Carbon Monoxide (CO)	1,500 ppmvd @ 3% O_2	Item 7.a of Table 2
Filterable Particulate Matter (PM) or Total Selected Metals (TSM)	3.7E-02 lb/MMBtu or 2.4E-04 lb/MMBtu	Item 7.b. of Table 2

Table 6: Boiler Work Practice Standards (Also Table 3 to 40 CFR 63 Subpart DDDDD)	
Item No. of Table 3	You must meet the following . . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or….	Conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR 63.7540.
4. An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1,

Table 6: Boiler Work Practice Standards (Also Table 3 to 40 CFR 63 Subpart DDDDD)	
Item No. of Table 3	You must meet the following . . .
	2008 and the compliance date specified in 40 CFR 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR 63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup	a. You must operate all CMS during startup. b. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis. c. You have the option of complying using either of the following work practice standards. (1) If you choose to comply using definition (1) of "startup" in 40 CFR 63.7575, once you start firing fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose, OR (2) If you choose to comply using definition (2) of "startup" in 40 CFR 63.7575, once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. You must

Table 6: Boiler Work Practice Standards (Also Table 3 to 40 CFR 63 Subpart DDDDD)	
Item No. of Table 3	You must meet the following . . .
	engage and operate PM control within one hour of first feeding fuels that are not clean fuels[a]. You must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. You must develop and implement a written startup and shutdown plan, as specified in §63.7505(e). d. You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet this work practice. You must collect monitoring data during periods of startup, as specified in 40 CFR 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in 40 CFR 63.7555.
6. An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown	You must operate all CMS during shutdown. While firing fuels that are not clean fuels during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas. You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in 40 CFR 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in 40 CFR 63.7555.

Note that Mr. Davis requested on behalf of the facility that the permit keep both definitions of "startup" for operation flexibility. The Division agrees with the facility's request.

40 CFR 63.7540(d) also requires that the facility meet the work practice standards according to Items 5 and 6 of Table 3 to 40 CFR 63 Subpart DDDDD for startup and shutdown.

In addition to the above emission limits and work practice standards, the Boiler MACT also specifies the following applicable operating limits for Boiler PB02. According to Mr. Davis, the facility use an electrostatic precipitator (ESP) to control emissions from Boiler PB02; the facility has also installed a continuous emission monitoring system (COMS) at the exit of the ESP because the facility does not operate any particulate matter continuous parameter monitoring system (PM CPMS). Mr. Davis also informed the Division that Boiler PB02 is equipped with an oxygen trim system.

Table 7: Operating Limits for Boiler PB02		
Pollution Controls or Parameter	Operating Limits	Source/Citation
ESP without a PM CPMS (Without a Wet Scrubber)	Maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the most recent performance testing demonstrating compliance with the PM (or TSM) emission limits.	40 CFR 63.7500(a)(2) Item 4.a. of Table 4 to 40 CFR 63 Subpart DDDDD
Operating Loading	Maintain the 30-day rolling average operating load of each boiler such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance testing.	40 CFR 63.7500(a)(2) Item 7. of Table 4 to 40 CFR 63 Subpart DDDDD
Oxygen Trim System	Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test.	40 CFR 63.7525(a)(7)

40 CFR 63.7500(f) and 63.7505(a) state that the above standards apply at all times Boiler PB02 is operating except during periods of startup and shutdown during which time the facility must comply only with Items 5 and 6 of Table 3 to 40 CFR 63 Subpart DDDDD.

40 CFR 63.7500(a)(3) requires that the facility, at all times, operate and maintain Boiler PB02, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

In order to determine the applicable compliance demonstrating requirements, the Division, during the review of Application No. TV-46293, inquired what options specified in the Boiler MACT the facility would choose. According to Mr. Davis, the facility has chosen to conduct annual performance testing to demonstrate compliance. The facility does not wish to conduct any fuel analysis and operate any continuous emission monitoring systems (CEMS). Therefore, the facility is subject to the following 40 CFR 63 Subpart DDDDD testing and monitoring requirements:

- 40 CFR 63.7505(c) and 63.7520(a) require that the facility conduct performance testing to demonstrate compliance with all applicable emission limits.

- 40 CFR 63.7545(d) requires a Notification of Intent to Conduct a Performance Test at least 60 days before the test date. This requirement is already subsumed in existing Condition 4.1.2.

- 63.7510(a)(1), (c), (d), and (e) includes the initial performance testing requirements. The facility has already met the requirements in 2017.

- For all 40 CFR 63 Subpart DDDDD performance tests, the facility must use the test methods specified in Table 5 to 40 CFR 63 Subpart DDDDD for the performance testing; the 40 CFR 63 Subpart DDDDD test methods have been incorporated into the modified Condition 4.1.3 in the proposed Title V permit amendment.

- 40 CFR 63.7515(a) through (c) includes the subsequent performance testing requirements. If the test results for at least 2 consecutive years are at or below 75% of the emission limit, the facility may choose to test the pollutant once every three years. If any 3-yr testing reveals an emission rate greater than 75% of the emission limit, then the annual testing must be resumed.

- In addition to Table 5 to 40 CFR 63 Subpart DDDDD, 40 CFR 63.7520(a) through (f) includes the specific testing procedures for the annual performance testing.

- In the event if the facility changes the fuel type for Boiler PB02, per 40 CFR 63.7530(b), the facility must either repeat the above performance testing after the fuel change or demonstrate through fuel analysis that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the boilers.

- 40 CFR 63.7510(a)(3); 63.7520(c); and 63.7530(a) and (b) require that the facility, during the above performance testing, establish operating limits according to Table 7 to 40 CFR 63 Subpart DDDDD. As shown in Table 7 of this Narrative, the facility must establish the operating limits for the site-specific maximum opacity level, maximum operating load, and minimum oxygen level (for the oxygen trim system) for each boiler.

  Please note that 40 CFR 63 Subpart DDDDD does not include the ESP secondary power (secondary voltage multiplying by secondary amperage) as an operating limit for the ESP.

- 40 CFR 63.7515(f) requires that the facility submit the test reports and any associated fuel analyses within 60 days after the completion of tests. The test reports must also verify the existing operating limits or provide documentation of revising the operating limits.

- 40 CFR 63.7500(a)(1); 40 CFR 63.7510(e); 40 CFR 63.7515(d); 40 CFR 63.7530(h); 40 CFR 63.7540(a)(12); and Item 1. of Table 3 to 40 CFR 63 Subpart DDDDD all contain the same 5-year annual tune-up work practice standards for Boiler PB02. Per 40 CFR 63.7540(a)(13), if any of Boiler PB02 is not operating on the required date for tune-up, the tune-up can be delayed until the boiler resumes operation (within 30 days of startup).

- 40 CFR 63.7525(c) requires all boilers subject to an opacity operating limit and are not otherwise required or elect to install and operate a PM Continuous Parameter Monitoring System (CPMS), PM Continuous Emission Monitoring System (CEMS), or a bag leak detection system to be equipped with a Continuous Opacity Monitoring System (COMS). Per 40 CFR 63.7525(b), the operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. Since Boiler PB02 and the associated air pollution control devices are all not equipped with any PM CPMS, the boiler is subject to the opacity operating limit specified in Item 4.a. of Table 4 to 40 CFR 63 Subpart

DDDDD, and are therefore subject to the COMS requirements specified in 40 CFR 63.7525(c).

40 CFR 63.7505(d)(4); 63.7525(c)(1) through (7); 63.7535(a); and Item 1. of Table 8 to 40 CFR 63 Subpart DDDDD include the COMS procedures. 40 CFR 63.7505(d)(3) and 63.7510(a)(4) require that the facility conduct a performance evaluation of each COMS in accordance with the site-specific monitoring plan that is required by 40 CFR 63.7505(d)(1).

- 40 CFR 63.7525(d) states that, if Boiler PB02 is subject to operating limit that requires the use of a Continuous Monitoring System (CMS) other than a PM CPMS or COMS, the facility must operate and maintain the CMS according to the procedures in 40 CFR 63.7525(d)(1) through (5).

  As shown in Table 7 of this narrative, the facility is subject to three operating limits: opacity, operating load, and oxygen trim system. The opacity operating limits warrant the use of COMS. Note that, per Item 8. of Table 4 to 40 CFR 63 Subpart DDDDD, the 30-day rolling average oxygen content requirement does not apply to units with an oxygen trim system. 40 CFR 63.7525(a)(7) only requires that the oxygen level at the oxygen trim system be set no lower than the lowest average oxygen concentration measured during the most recent CO performance test. Therefore, although the oxygen trim system is an operating limit, it does not warrant a use of any CMS. The only operating limit that would warrant a use of a CMS other than a COMS is the operating load.

  In addition 40 CFR 63.7525(d)(1) through (5), 40 CFR 63.7540(a) and Item 10. of Table 8 to 40 CFR 63 Subpart DDDDD also include the operating load CMS procedures/requirements.

- For the COMS and the operating load CMS, 40 CFR 63.7535(b) through (d) contains additional operation and data collection requirements. The monitoring devices must be in operation and collect data at all required intervals except malfunction/out-of-control periods. Data collected during startup, shutdown, and malfunction/out-of-control periods shall not be used.

The following definition of applicable 40 CFR 63 Subpart DDDDD deviations are identified and incorporated into modified Condition 6.1.7:

- 40 CFR 63.7525(c)(6) and 40 CFR 63.7535(d) define a deviation as any 6-minute period for which any of the COMS at Boiler PB02 is out of control and data are not available for a required calculation.

- 40 CFR 63.7525(d)(3) and 40 CFR 63.7535(d) define a deviation as any 15-minute period for which the operating load CMS is out-of-control and data are not available for a required calculation.

- 40 CFR 63.7540(a)(1); 40 CFR 63.7540(b); and Item 1.c. of Table 8 to 40 CFR 63 Subpart DDDDD define a deviation as any daily block COMS average opacity or 30-day rolling COMS average opacity that is greater than the associated opacity operating limits.

- 40 CFR 63.7540(a)(1); 40 CFR 63.7540(b); and Item 10.c. of Table 8 to 40 CFR 63 Subpart DDDDD define a deviation as any 30-day rolling average boiler operating load that exceeds 110 percent of the associated operating load limits.

- 40 CFR 63.7540(a)(1) and 40 CFR 63.7540(b) define a deviation as any occurrence that the oxygen trim system detects an oxygen level lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test.

Finally, 40 CFR 63 Subpart DDDDD includes the following applicable requirements for Boiler PB02:

- 40 CFR 63.7505(d)(1) and (2) requires a site-specific monitoring plan because the facility will demonstrate compliance with the PM emission limit through annual performance testing and continuous compliance with the opacity operating limit through the use of COMS. These sections includes the information that needs to be included in the site-specific monitoring plan.

- Since the facility chose to comply with definition (2) of "startup" in 40 CFR 63.7575, 40 CFR 63.7505(e) requires a written startup and shutdown plan.

- Note that the facility has already met the reporting/notification requirements associated with the initial performance testing specified in 40 CFR 63.7530 and 40 CFR 63.7545(e).

- 40 CFR 63.7550(a) requires that the facility submit each semiannual report in Table 9 to 40 CFR 63 Subpart DDDDD. Item1.a. of Table 9 requires the information specified in 40 CFR 63.7550(c)(1) through (5), which details what information is needed if the facility conducts a tune-up, conducts performance testing, or uses a COMS for compliance. Items 1.b. through d. require reporting of if there is any deviations from the emission limits, work practice standards, or operating limits and if any CMSs were "out-of-control."

  40 CFR 7550(b)(5) allows that the facility submit the above semiannual report according to the semiannual reporting schedule specified in the existing Title V Permit.

- 40 CFR 63.7550(d) requires that the facility include the information specified in 40 CFR 63.7550(d)(1) through (3) in the semiannual reports for each deviations from any emission limits, work practice standards, or operating limits that the facility is not using a CMS to comply with. An example would be a malfunction of the oxygen trim system while the associated boiler is in operation.

- 40 CFR 63.7550(e) requires that the facility include the information specified in 40 CFR 63.7550(e)(1) through (9) in the semiannual reports for each deviations from any emission limits, work practice standards, or operating limits that the facility is using a CMS to comply with. An example would be any daily block COMS average opacity or 30-day rolling COMS average opacity that is greater than the opacity operating limits.

- In addition to submit the performance test results to GA EPD, 40 CFR 63.7550(h)(1)(i) requires that the facility also submit the performance test results to U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI).

- Similarly, per 40 CFR 63.7550(h)(3), the facility must submit the semiannual reports that are required by 40 CFR 63.7550(a) through (c) and Items 1.a. through 1.c. of Table 9 t 40 CFR 63 Subpart DDDDD to U.S. EPA via the CEDRI.

- 40 CFR 63.7555(a)(1) and (2) require that the facility maintain records of all notifications, reports, and performance test results (and results of all other compliance demonstration).

- 40 CFR 63.7555(b)(1) through (3) and (5) include the records that the facility must maintain for the COMS and operating load CMS.

- 40 CFR 63.7555(c) requires that the facility maintain records required in Table 8 (for operating limits) to 40 CFR 63 Subpart DDDDD. This applies to the COMS and operating load CMS.

- 40 CFR 63.7555(d)(1) through (13) include various records that the facility must maintain because Boiler PB02 is subject to the emission limits specified in Table 2 to 40 CFR 63 Subpart DDDDD.

Used Oil Specifications

The used oil fired in Boiler PB02 is subject to the specifications included in 40 CFR 279.11 "Used Oil Specifications." The facility is required to keep records demonstrating compliance with those specifications. Condition 3.3.9 includes those specifications.

Georgia State Rules

Hurst Power Boiler PB02

The Hurst Power Boiler (ID No. PB02) is subject to Georgia Air Quality Rule 391-3-1-.02(2)(d), "Fuel Burning Equipment." Since the boiler was constructed after 1972, Georgia Rule 391-3-1-.02(2)(d)3. limits the opacity of the emissions from the boiler to twenty (20) percent. Also, the allowable PM emission rate from the boiler is specified by Georgia Rule 391-3-1-.02(2)(d)2.(ii) and included in Condition 3.4.2, as follows:

$P = 0.5 * (10 / R)^{0.5}$

Where P equals the allowable PM emission rate in pounds per million BTU and R equals the heat input in million BTUs per hour.

Table 9: GA Rule (d) PM Emission Standard for Boiler PB02

ID No.	Input Capacity (MMBtu/hr)	GA Rule (d) PM Emission Standard
PB02	61	$P = 0.5 * (10 / 61)^{0.5} = 0.202$ lb/MMBtu

Note that the 40 CFR 63 Subpart DDDDD PM and visible emission standards for Boiler PB02 are more stringent than the GA Rule(d) PM and visible emission standards, and 40 CFR 63 also requires annual performance testing for PM and continuous opacity monitoring systems (COMS) for visible emissions. These are required in Conditions 4.2.1, 4.2.4, and 5.2.7 of the proposed Title V renewal permit. The facility will demonstrate compliance with the 40 CFR 63 Subpart DDDDD and GA Rule(d) PM and visible emission standards through the performance testing and by the COMS.

PB02 is also subject to the 2.5-percent fuel sulfur content standard specified in Georgia Air Quality Rule 391-3-1-.02(2)(g), "Sulfur Dioxide." Since the boilers primarily fire on wood waste, and wood contains minimal amount of sulfur, compliance with the Georgia Rule (g) sulfur content limit is therefore expected. The GA Rule (g) fuel sulfur requirement is included in Condition 3.4.4 of the proposed Title V renewal permit.

Process Groups

The sawmill process group (ID No. SM01), planer mill (ID No. PM01), and lumber dry kilns (ID Nos. KL01, KL02, and KL04) are each subject to Georgia Air Quality Rule 391-3-1-.02(2)(b) "Visible Emissions" and Rule 391-3-1-.02(2)(e) "Particulate Emission from Manufacturing Processes." Georgia Rule 391-3-1-.02(2)(b)1. limits the opacity of their visible emissions to forty (40) percent. Since they were all installed after July 2, 1968, the allowable PM emission rate from each process is specified by Georgia Rule 391-3-1-.02(2)(e)1.(i), which is stated as follows:

$E = 4.1 * P^{0.67}$ for process input weight rate up to and including 30 tons per hour.
$E = 55 * P^{0.11} - 40$ for process input weight rate above 30 tons per hour.

Where E equals the allowable PM emission rate in pounds per hour and P equals the process input weight rate in tons per hour.

With the cyclones (ID Nos. CY01 through CY05) and baghouses (ID Nos. BH02 and PBH1), the Division expects that SM01 and PM01 would comply with the associated GA Rule (b) and Rule (e) standards. In order to ensure proper operation of the cyclones, the facility is required by Condition 5.2.2 to conduct weekly exterior inspection. For the baghouses, the facility must follow the VE check requirements in Condition 5.2.3 and monitoring requirements in Condition 5.2.4

Compliance with the GA Rule (e) PM emission standards for KL01, KL02, and KL04 is expected as follows.

Table 10: GA Rule (e) PM Emission Standards for Kilns Kl01, KL02, and KL04

Name/ID No.	Process Input Weight Rate (P) (MMbf/yr)	Process Input Weight Rate (P) (tons/hr)	Allowable Emission Rate (E) (lbs PM / hr)
Kiln KL01	44	10.0	$P = 4.1 * 10.0^{0.67} = 19.2$
Kiln KL02	103	23.5	$P = 4.1 * 23.5^{0.67} = 34.0$
Kiln KL04	103	23.5	$P = 4.1 * 23.5^{0.67} = 34.0$

1 ft^3 = 12 bf
Assumed Wood Density = 48 lbs/ft^3

44 MMbf/yr
= (44,000,000 bf/yr)*(1 ft^3/12bf)*(48 lbs/ft^3)*(1 ton/2,000 lbs)*(1 yr/8,760 hrs)
= 10.0 tph

103 MMbf/yr
= (103,000,000 bf/yr)*(1 ft^3/12bf)*(48 lbs/ft^3)*(1 ton/2,000 lbs)*(1 yr/8,760 hrs)
= 23.5 tph

For a lumber drying kiln, PM emission rate is 0.14 lb/Mbf.

PM Emission Rate of KL01
= (0.14 lb PM/Mbf)*(44 MMbf/yr)*(1 yr/8,760 hrs)
= 0.728 lbs PM/hr < 19.2 lbs PM/hr

PM Emission Rate of each of Kilns KL02 and KL04
= (0.14 lb PM/Mbf)*(103 MMbf/yr)*(1 yr/8,760 hrs)
= 1.70 lbs PM/hr < 34.0 lbs PM/hr

The Division also believes that the kilns would also comply with the GA Rule (b) 40 percent opacity limit.

C. Permit Conditions

The conditions in Section 3 of Title V Permit No. 2421-001-0005-V-05-0 and its amendments have been re-organized and included in the proposed Title V renewal permit. These conditions have been re-numbered more logically. The following table illustrates the relationship between conditions in Section 3 of the previous permits and the Title V renewal permit. Explanations of current permit conditions are included after the table.

Table 11: Condition (in Section 3) Comparison Between Title V Permit No. 2421-001-0005-V-05-0, Its Amendments, and The Proposed Title V Renewal Permit

Old Condition No.	Last Permit No. Containing It	New Condition No.
3.2.1	2421-001-0005-V-05-0	3.2.1
3.2.2	2421-001-0005-V-05-0	3.2.3
3.2.3	2421-001-0005-V-05-0	3.2.4
3.2.4	2421-001-0005-V-05-4	3.2.1
3.2.5	2421-001-0005-V-05-4	3.2.5
3.2.6	2421-001-0005-V-05-4	3.2.2
3.3.1	2421-001-0005-V-05-0	3.3.1
3.3.2	2421-001-0005-V-05-0	3.3.2
3.3.3	2421-001-0005-V-05-0	3.3.9
3.3.4	2421-001-0005-V-05-1	3.3.1
3.3.5	2421-001-0005-V-05-1	3.3.5
3.3.6	2421-001-0005-V-05-1	3.3.9

3.4.1	2421-001-0005-V-05-0	3.4.1
3.4.2	2421-001-0005-V-05-0	3.4.2
3.4.3	2421-001-0005-V-05-0	3.4.3
3.4.4	2421-001-0005-V-05-0	3.4.4
3.4.5	2421-001-0005-V-05-1	3.4.1
3.4.6	2421-001-0005-V-05-1	3.4.2
3.4.7	2421-001-0005-V-05-1	3.4.3
3.4.8	2421-001-0005-V-05-1	3.4.4

Please note that the emission limits for Boiler PB02 are included in three separate conditions (Conditions 3.2.4, 3.3.3, and 3.4.2) mainly because they are required by different reason or regulations. The emission limits in Condition 3.2.4 are for PSD avoidance purposes; the emission limits in Condition 3.3.3 are specified in 40 CFR 63 Subpart DDDDD; and the emission limits in Condition 3.4.2 are specified in Georgia Rules for Air Quality Control 391-3-1-.02(2)(d).

Condition 3.2.1 contains the VOC BACT standard for the lumber dry kilns (ID Nos. KL01, KL02, and KL04). This annual throughput limit is the product of the PSD review that was conducted in 2017.

Condition 3.2.2 also contains a VOC BACT requirement for Kiln KL02, the conversion of which triggered the 2017 PSD review (retroactively). The facility must implement a Work Practice and Preventive Maintenance Program for Kiln KL02. Please note that, during the review of Application No. TV-46293, the facility requested to modify this condition because Kiln KL02 does not have some of the equipment or operating parameters specified in the existing condition. The Division agrees and has made the requested changes.

Condition 3.2.3 contains the PSD avoidance limits for the planer mill (ID No. PM01) which exempted PM01 from going through a PSD review for PM/PM_{10} in 1998/1999.

Condition 3.2.4 contains the PSD avoidance limits for the Hurst Power Boiler (ID No. PB02) which exempted PB02 from going through a PSD review for PM_{10}, NOx, and CO in 1998/1999.

Condition 3.2.5 specifies the fuel type for the direct-fired Kiln KL02. This also subsumes the GA Rule (g) fuel sulfur content limit.

Condition 3.3.1 subjects Kilns KL01, KL02, and KL04 to 40 CFR 63 Subpart A and Subpart DDDD.

Conditions 3.3.2 through 3.3.8 contains the Boiler MACT requirements for Boiler PB02 as follows:

- Condition 3.3.2 subjects Boiler PB02 to 40 CFR 63 Subpart A and Subpart DDDDD.
- Conditions 3.3.3a. through d. contain the emission limits specified in Table 2 to 40 CFR 63 Subpart DDDDD.

- Condition 3.3.3e. contains the opacity operating limits specified in Table 4 to 40 CFR 63 Subpart DDDDD.

- Condition 3.3.4 contains the work practice standards during boiler startup specified in Item 5 of Table 3 to 40 CFR 63 Subpart DDDDD.

- Condition 3.3.5 contains the work practice standards during boiler shutdown specified in Item 6. of Table 3 to 40 CFR 63 Subpart DDDDD.

- Condition 3.3.6 contains the operating load (operating) limit specified in Item 7 of Table 4 to 40 CFR 63 Subpart DDDDD.

- Condition 3.3.7 contains the oxygen trim system requirement specified in 40 CFR 63.7525(a)(7).

- Condition 3.3.8 includes the general operating requirements specified in 40 CFR 63.7500(a)(3).

Condition 3.3.9 contains the specifications for the used oil that the facility is allowed to fire in Boiler PB02.

Condition 3.4.1 subjects the sawmill process group (ID No. SM01), the planer mill (ID No. PM01), and the lumber dry kilns (ID Nos. KL01, KL02, and KL04) to the GA Rule (b) visible emission standard.

Condition 3.4.2 subjects Boiler PB02 to the GA Rule (d) PM and visible emission standards.

Condition 3.4.3 subjects SM01, PM01, KL01, KL02, and KL04 to the GA Rule (e) PM emission standards.

Condition 3.4.4 includes the GA Rule (g) fuel sulfur content limit for Boiler PB02.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

As discussed previously, Condition 4.1.3 of the proposed Title V renewal permit has been modified to incorporate the test methods specified in Table 5 to 40 CFR 63 Subpart DDDDD.

The conditions in Section 4.2 of Title V Permit No. 2421-001-0005-V-05-0 and its amendments have been re-organized and included in the proposed Title V renewal permit. These conditions have been re-numbered more logically. The following table illustrates the relationship between conditions in Section 4.2 of the previous permits and the Title V renewal permit. Explanations of current permit conditions are included after the table.

Table 12: Condition (in Section 4.2) Comparison Between Title V Permit No. 2421-001-0005-V-05-0, Its Amendments, and The Proposed Title V Renewal Permit

Old Condition No.	Last Permit No. Containing It	New Condition No.
4.2.1	2421-001-0005-V-05-0	4.2.7
4.2.2	2421-001-0005-V-05-0	4.2.8
4.2.3	2421-001-0005-V-05-0	4.2.9
4.2.4	2421-001-0005-V-05-3	4.2.7
4.2.5	2421-001-0005-V-05-1	4.2.9

In order to demonstrate compliance with the NOx/CO/PM_{10} PSD avoidance limits and GA Rule (d) PM emission standard for Boiler PB02, the facility has been required to conduct annual PM performance tests. If any test result is less than 50% of the associated standard, the testing frequency of that pollutant from PB02 can be relaxed from annually to once every 48 months. These were required in existing Conditions 4.2.1 and 4.2.4. New Condition 4.2.7 now includes the state required testing conditions with the following key developments:

- During the review of Application No. TV-46293, the Division incorporates all the applicable 40 CFR 63 Subpart DDDDD requirements into the proposed Title V renewal permit. Please note that the Boiler MACT PM emission limit, 0.037 lb/MMBtu, is more stringent than the GA Rule (d) PM emission standard, 0.202 lb/MMBtu. Therefore, the facility only needs to demonstrate compliance with the Boiler MACT PM emission limit. The state required testing condition no longer requires PM testing. Note that PM_{10} testing is still required.

- Boiler PB02 is subject to the Boiler MACT CO limit (in ppmv at 3% O_2) and CO PSD avoidance limit (in lbs/hr). However, these two emission limits are in different units, and cannot be compared when the boiler operating loads (in MMBtu/hr) vary. Although the facility may conduct both tests in the same test runs, the permit still need to separately list the testing requirements so compliance with each emission limit can be determined.

- Since the facility may be able to determine compliance with different emission limits in the same test runs, the Division has decided to change the testing frequencies specified in existing Conditions 4.2.1 and 4.2.4, when there is a good compliance margin, to match the Boiler MACT testing frequencies. If any test result is less than 75% of the applicable emissions limitation contained in Condition 3.2.4 for at least 2 consecutive years, the testing frequency of that pollutant from PB02 can be relaxed from annually to once every 36 months.

- Should any 36-month testing yield a result equal to or exceed 75% of the applicable emissions limitation, the facility must resume the annual performance testing frequency.

New Condition 4.2.8 includes the testing requirements specified in existing Condition 4.2.2. Performance of a boiler may affect the amount of NOx and CO emissions; typically, one may increase while the other decreases. Therefore, the NOx and CO testing must be taken simultaneously.

New Condition 4.2.9 includes the testing requirements specified in existing Conditions 4.2.2 and 4.2..5. During the most recent PM performance testing, the facility must establish a minimum hourly average total secondary power that indicates proper operation of HESP and compliance with the PM/PM_{10} emission limits specified in Conditions 3.2.4a. and 3.3.3d.

New Conditions 4.2.1 through 4.2.6 contain the following Boiler MACT testing requirements:

- Conditions 4.2.1 and 4.2.2 contain the annual or 3-yr performance testing requirements specified in 40 CFR 63.7505(c); 40 CFR 63.7515(a) through (c); and 40 CFR 63.7520(a).

- Condition 4.2.3 contains the performance testing procedures required by 40 CFR 63.7520 for the above initial and subsequent performance testing.

- In the event the facility wants to change the fuel type for Boiler PB02, Condition 4.2.4 contains the required re-testing or fuel analysis options provided in 40 CFR 63.7530(b).

- Condition 4.2.5 contains the 40 CFR 63 Subpart DDDDD operating limits establishing requirements specified in 40 CFR 63.7520(c); 40 CFR 63.7530(a) and (b); and Table 4 and Table 7 to 40 CFR 63 Subpart DDDDD. The facility must establish operating limits for maximum opacity level, maximum operating load level, and minimum oxygen level for Boiler PB02.

- Condition 4.2.6 includes the test reporting requirements specified in 40 CFR 63.7515(f).

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

The conditions in Section 5.2 of Title V Permit No. 2421-001-0005-V-05-0 and its amendments have been re-organized and included in the proposed Title V renewal permit. These conditions have been re-numbered more logically. The following table illustrates the relationship between conditions in Section 5.2 of the previous permits and the Title V renewal permit. Explanations of current permit conditions are included after the table.

Table 13: Condition (in Section 5.2) Comparison Between Title V Permit No. 2421-001-0005-V-05-0, Its Amendments, and The Proposed Title V Renewal Permit

Old Condition No.	Last Permit No. Containing It	New Condition No.
5.2.1	2421-001-0005-V-05-0	No Longer Included
5.2.2.a and b.	2421-001-0005-V-05-0	5.2.1a. and b.
5.2.2c.	2421-001-0005-V-05-0	No Longer Included
5.2.2d.	2421-001-0005-V-05-0	No Longer Included
5.2.3	2421-001-0005-V-05-0	5.2.5
5.2.4	2421-001-0005-V-05-0	5.2.2
5.2.5	2421-001-0005-V-05-0	5.2.3
5.2.6	2421-001-0005-V-05-0	5.2.4
5.2.7	2421-001-0005-V-05-0	No Longer Included
5.2.8	2421-001-0005-V-05-0	No Longer Included
5.2.9	2421-001-0005-V-05-0	No Longer Included
5.2.10	2421-001-0005-V-05-1	5.2.5
5.2.11	2421-001-0005-V-05-1	5.2.2
5.2.12	2421-001-0005-V-05-1	No Longer Included
5.2.13	2421-001-0005-V-05-2	5.2.1c.
5.2.14	2421-001-0005-V-05-2	5.2.3
5.2.15	2421-001-0005-V-05-2	5.2.4

Since Boiler PB01 has already been decommissioned, the requirements specified in existing Conditions 5.2.1 and 5.2.8 are no longer included in the proposed Title V renewal permit.

Since Boiler PB02 is now equipped with an oxygen trim system, which the facility used to indicate compliance with the Boiler MACT CO emission limit, the boiler exit oxygen monitoring requirement specified in existing Condition 5.2.2c. is no longer included in the proposed Title V renewal permit.

Also, Boiler PB02 is now subject to the Boiler MACT operating load CMS requirements specified in new Condition 5.2.8. The steam generation monitoring requirement specified in existing Condition 5.2.2d is no longer included in the proposed Title V renewal permit.

As discussed in Section V.C. below, Boiler PB02 is no longer subject to the CAM requirements. Therefore, the requirements of existing Conditions 5.2.7, 5.2.8, and 5.2.12 are not included in the proposed Title V renewal permit.

In order to ensure proper operation of the electrostatic precipitator (ID No. HESP) and continuous compliance with the GA Rule (d) PM emission limit, the Boiler MACT PM emission limit, and the PM_{10} PSD avoidance limit, the facility is required by Conditions 5.2.1a. and b. to monitor both the secondary voltage and secondary amperage of each ESP field. Note that no monitoring is needed for the multiclone (ID No. HMC1) that is upstream of HESP because HESP's total secondary power monitoring and the COMS are sufficient monitoring requirements to ensure the compliance.

In order to ensure proper operation of the baghouses (ID Nos. BH02 and PBH1) and cyclones (ID Nos. CY01 through CY05) and continuous compliance with the GA Rule (b) visible emission limit and GA Rule (e) PM emission limits, also the PM/PM10 PSD avoidance limit for Planer Mill PM01, the facility is required to perform the following monitoring requirements:

- Condition 5.2.1c. requires pressure drop monitoring for BH02.

- Condition 5.2.1d. requires pressure drop monitoring for PBH1.

- Condition 5.2.2 requires that the facility inspect and maintain records of each inspection of the cyclones for each week or portion of each week of operation of the associated emission units. Note Condition 5.2.2 excludes Multiclone HMC1 for the reason discussed above.

- Condition 5.2.3 requires that the facility conduct a daily VE check for each day of operation of the baghouses (ID Nos. BH02 and PBH1) that control Sawmill Process Group SM01 and Planer Mill PM01.

- Condition 5.2.4 requires that the facility implement a Preventive Maintenance Program, which includes the pressure drop monitoring required by Conditions 5.2.1c. and d.

Condition 5.2.5 contains the used oil monitoring requirements for Boiler PB02. Note that the test methods have been updated per the comments by the Division's Source Monitoring Unit.

Conditions 5.2.6 through 5.2.9 contain the following Boiler MACT monitoring requirements:

- Condition 5.2.6 includes the 5-year tune-up requirements specified in 40 CFR 63.7500(a)(1); 40 CFR 63.7515(d); 40 CFR 63.7530(h); 40 CFR 63.7540(a)(12); and Item 1. of Table 3 to 40 CFR 63 Subpart DDDDD.

- Condition 5.2.7 includes the COMS requirements specified in 40 CFR 63.7525(c); 40 CFR 63.7540(a); and Item 1.a. of Table 8 to 40 CFR 63 Subpart DDDDD.

- Condition 5.2.8 includes the operating load CMS requirements specified in 40 CFR 63.7525(d); 40 CFR 63.7540(a); and Item 10. of Table 8 to 40 CFR 63 Subpart DDDDD.

- For the CMS required by Conditions 5.2.7 and 5.2.8, Condition 5.2.9 contains the additional operation and data collection requirements specified in 40 CFR 63.7535(b) through (d).

C. Compliance Assurance Monitoring (CAM)

An emission unit is subject to the provisions of 40 CFR 64, "Compliance Assurance Monitoring" because:

- It is located at a major source that is required to obtain a Title V Permit. [§64.2(a)]
- It is subject to an emission limitation or standard for the applicable pollutant (PM). [§64.2(a)(1)]
- The facility uses a control device to achieve compliance. [§64.2(a)(2)]
- Potential pre-controlled emissions of the applicable pollutant (particulate matter) from such emission unit are at least 100 percent of major source threshold. [§64.2(a)(3)]

Although the sawmill process group (ID No. SM01) and planer mill (ID No. PM01) are both equipped with cyclones (ID Nos. CY01 through CY05) and baghouses (ID Nos. BH02 and PBH1), the Division believes that the control devices are installed to reclaim material rather than for achieving compliance with the GA Rule (b) visible emission standard and GA Rule (e) PM emission standards. Without the control devices, SM01 and PM01 could easily be categorized as fugitive emission sources, and their pre-control PM emissions are believed to be insignificant and minimal (much less than 100 percent of major source threshold) due to the nature of the large size of PM generated by these sources. Therefore, the Division determines that SM01 and PM01 are not subject to the CAM requirements.

For Boiler PB02, the electrostatic precipitator (ID No. HESP) is considered the main control device for achieving compliance with the GA Rule (d) PM emission standard, the Boiler MACT PM emission limit, and the PM_{10} PSD avoidance limit. In the past, Boiler PB02 was believed to have a pre-control PM/PM_{10} emission rate above 100 tpy; therefore, existing Conditions 5.2.7, 5.2.8, and 5.2.12 included the CAM requirements for Boiler PB02. However, 40 CFR 64.2(b)(i) exempts emission units that are subject to a post 11/15/1990 NSPS or NESHAP regulation. Since Boiler PB02 is subject to 40 CFR 63 Subpart DDDDD (Boiler MACT), it is no longer subject to the CAM requirements.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a [quarterly or semiannual] basis.

B. Specific Record Keeping and Reporting Requirements

The conditions in Section 6 of Title V Permit No. 2421-001-0005-V-05-0 and its amendments have been re-organized and included in the proposed Title V renewal permit. These conditions have been re-numbered more logically. The following table illustrates the relationship between conditions in Section 6 of the previous permits and the Title V renewal permit. Explanations of current permit conditions are included after the table.

Table 14: Condition (in Section 6) Comparison Between Title V Permit No. 2421-001-0005-V-05-0, Its Amendments, and The Proposed Title V Renewal Permit

Old Condition No.	Last Permit No. Containing It	New Condition No.
6.1.7b.i. and ii.	2421-001-0005-V-05-0	6.1.7b.i. and ii.
6.1.7c.i. and ii.	2421-001-0005-V-05-0	No Longer Included
6.1.7c.iii.	2421-001-0005-V-05-0	6.1.7c.iv.
6.1.7c.iv.	2421-001-0005-V-05-0	6.1.7c.vii.
6.1.7c.v.	2421-001-0005-V-05-0	6.1.7c.vi.
6.1.7c.vi.	2421-001-0005-V-05-0	6.1.7c.i.
6.1.7c.vii.	2421-001-0005-V-05-0	6.1.7c.iii.
6.1.7d.i.	2421-001-0005-V-05-0	6.1.7d.i.
6.1.8b.i. thru iii.	2421-001-0005-V-05-4	6.1.7b.i. thru iii.
6.1.8c.i.	2421-001-0005-V-05-4	6.1.7c.iv.
6.1.8c.ii.	2421-001-0005-V-05-4	6.1.7c.vii.
6.1.8c.iii.	2421-001-0005-V-05-4	6.1.7c.vi.
6.1.8c.iv.	2421-001-0005-V-05-4	6.1.7c.i.
6.1.8c.v.	2421-001-0005-V-05-4	6.1.7c.iii.
6.1.8d.i.	2421-001-0005-V-05-4	6.1.7d.i.
6.1.9c.viii.	2421-001-0005-V-05-2	6.1.7c.ii
6.2.1	2421-001-0005-V-05-0	6.2.4
6.2.2	2421-001-0005-V-05-0	6.2.1
6.2.3	2421-001-0005-V-05-0	6.2.5
6.2.4	2421-001-0005-V-05-0	6.2.6
6.2.5	2421-001-0005-V-05-0	6.2.2
6.2.6	2421-001-0005-V-05-0	6.2.3
6.2.7	2421-001-0005-V-05-0	No Longer Included
6.2.8	2421-001-0005-V-05-0	No Longer Included

Table 14: Condition (in Section 6) Comparison Between Title V Permit No. 2421-001-0005-V-05-0, Its Amendments, and The Proposed Title V Renewal Permit		
Old Condition No.	Last Permit No. Containing It	New Condition No.
6.2.9	2421-001-0005-V-05-0	No Longer Included
6.2.10	2421-001-0005-V-05-0	No Longer Included
6.2.11	2421-001-0005-V-05-1	6.2.1
6.2.12	2421-001-0005-V-05-1	6.2.2
6.2.13	2421-001-0005-V-05-1	6.2.3

Since existing Boiler PB01 and its venture scrubber (ID No. VS) are already decommissioned, the proposed Title V renewal permit no longer includes the requirements of existing Conditions 6.1.7c.i. and ii.

Since the facility went through a PSD review for VOC emissions in 2016, the VOC PSD avoidance limit specified in existing Condition 3.2.5 and the associated record keeping and reporting requirements are no longer needed. Therefore, the requirements specified in existing Conditions 6.2.7 through 6.2.10 are not included in the proposed Title V renewal permit.

Condition 6.1.7 of the proposed Title V renewal permit contains the following definitions of excursions and additional reporting requirements:

- Subparagraph b.i. defines an exceedance as any twelve consecutive month period for which the total amount of lumber dried in the lumber dry kilns (ID Nos. KL01, KL02, and KL04), combined, exceeds 250 million board feet. This would be a violation to the BACT limit in Condition 3.2.1.

- Subparagraph b.ii. defines an exceedance as any constituent/parameter of used oil, analyzed in accordance with Condition 5.2.5, exceeds the associate specification specified in Condition 3.3.9.

- Subparagraph b.iii. defines an exceedance as any time that the fuel burned in Lumber Dry Kiln No. 2 (ID No. KL02) does not meet the requirements specified in Condition 3.2.5. Note that the PSD review in 2016 was conducted based on the assumption that Kiln KL02 fires only wood waste.

- Subparagraph c.i. defines an excursion as any adverse condition(s) discovered by the weekly inspections specified in Condition 5.2.2.

- Subparagraph c.ii. defines an excursion as any two consecutive daily determinations of visible emissions, determined in accordance with Condition 5.2.3, from the sawmill baghouse (ID No. BH02).

- Subparagraph c.iii. defines an excursion as any two consecutive daily determinations of visible emissions, determined in accordance with Condition 5.2.3, from the planer mill baghouse (ID No. PBH1).

- Subparagraph c.iv. defines an excursion as any three-hour average total secondary power input to the electrostatic precipitator (ID No. HESP), recorded in accordance with Condition 6.2.7a., that is less than the minimum hourly average total secondary power determined in accordance with Condition 4.2.9b.

- Subparagraph c.v. defines an excursion as any daily block COMS average opacity, recorded in accordance with Condition 5.2.7h., that is greater than the opacity operating limits specified in Condition 3.3.3e.

- Subparagraph c.vi. defines an excursion as any 30-day rolling average boiler operating load, recorded in accordance with Condition 5.2.8d., that exceeds 110 percent of the highest hourly average operating load recorded in accordance with Condition 4.2.5b.iii.

- Subparagraph c.vii. defines an excursion as any operation of Boiler PB02 with an oxygen trim system set point below the lowest hourly average oxygen concentration measured during the most recent CO performance test.

- Subparagraph d.i. requires that the facility report the quantity and analysis of used oil burned from on-site sources. The analysis shall also include the on-specification parameters listed in Condition 3.3.9.

GA State Reporting and Record Keeping Requirements

Condition 6.2.1 requires that the facility keep monthly production records for Kilns KL01, KL02, and KL04.

Condition 6.2.2 requires that the facility calculate and record the twelve-month rolling combined production rate of KL01, KL02, and KL04 for each calendar month in the quarterly reporting period. The facility is then required by Condition 6.2.3 to submit the 12 month totals for each calendar month in the quarterly reporting period.

Note that the reporting period in Condition 6.1.4 has been changed from semiannually to quarterly because the facility owns and operate a COMS now. Per the Division's Procedures for Testing and Monitoring Sources of Air Pollutants, Part I: General Provisions, Section 1.5: Notification and Record Keeping, Paragraph (c), if a facility is required by a regulation to have a COMS, the facility must submit reports quarterly.

Condition 6.2.4 requires that the facility maintain a record of all actions taken in accordance with Condition 8.22.1 to suppress fugitive dust from the sawmill, roads, storage piles, or any other source of fugitive dust.

Condition 6.2.5 requires that the facility maintain a record of the amount of used oil burned and an analysis of used oil burned in Boiler PB02.

Conditions 6.2.6 and 6.2.7 requires that the facility calculate and maintain records of the hourly secondary power to each field of HESP and reduce it to 3-hour rolling averages.

40 CFR 63 Subpart DDDDD Reporting and Record Keeping Requirements

Condition 6.2.8 includes the site-specific monitoring plan development and reporting requirements specified in 40 CFR 63.7505(d)(1) and (2).

Condition 6.2.9 includes the written startup and shutdown plan requirements specified in 40 CFR 63.7505(e) if the facility chooses to comply with definition (2) of "startup" in 40 CFR 63.7575.

Condition 6.2.10 includes the semiannual reporting requirements specified in 40 CFR 63.7550(a); 40 CFR 63.7550(b)(1) through (b)(5); 40 CFR 63.7550(c)(1) through (c)(5); and Items 1.a. through 1.d. of Table 9 to 40 CFR 63 Subpart DDDDD.

Condition 6.2.11 includes the deviation reporting requirements specified in 40 CFR 63.7550(d) (not using a CMS).

Condition 6.2.12 includes the deviation reporting requirements specified in 40 CFR 63.7550(e) (using a CMS).

Condition 6.2.13 includes the performance test results EPA reporting requirements specified in 40 CFR 63.7550(h)(1)(i).

Condition 6.2.14 includes the semiannual EPA reporting requirements specified in 40 CFR 63.7550(h)(3).

Condition 6.2.15 includes the general record keeping (notification, test reports, semiannual reports, etc.) requirements specified in 40 CFR 63.7555(a).

Conditions 6.2.16 and 6.2.17 includes the recordkeeping requirements specified in 40 CFR 63.7555(b) and (c) for the COMS and operating load CMS.

Condition 6.2.18 includes the detailed record keeping requirements (such as fuel consumption records, startup and shutdown records, etc.) specified in 40 CFR 63.7555(d)(1) through (13).

VII. Specific Requirements

A. Operational Flexibility

None applicable.

B. Alternative Requirements

None applicable.

C. Insignificant Activities

Refer to http://gatv.georgiaair.org/GATV/default.asp for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

D. Temporary Sources

None applicable.

E. Short-Term Activities

None applicable.

F. Compliance Schedule/Progress Reports

None applicable.

G. Emissions Trading

None applicable.

H. Acid Rain Requirements

None applicable.

I. Stratospheric Ozone Protection Requirements

The standard permit condition pursuant to 40 CFR 82 Subpart F is included in this Title V Renewal Permit. According to Application No. TV-46293, the facility operates equipment that is subject to Title VI of the 1990 Clean Air Act Amendments.

J. Pollution Prevention

None applicable.

K. Specific Conditions

None applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative