Facility Name: **Packaging Corporation of America**
City: Clyattville
County: Lowndes
AIRS #: 04-13-185-00001

Application #: TV-583567
Date Application Received: August 20, 2021
Permit No: 2631-185-0001-V-04-0

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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: Packaging Corporation of America

2. Parent/Holding Company Name

Packaging Corporation of America Inc.

3. Previous and/or Other Name(s)

Tenneco Packaging Corporation
Packaging Corporation of America
Nekoosa Packaging
OI Valdosta & Timber STS, Incorporated
Owens-Illinois, Incorporated

4. Facility Location

5495 Clyattville-Lake Park Road
Valdosta, Georgia 31601

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

The facility is located in an attainment area.

B. 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
2611-185-0001-V-03-0	February 22, 2017	Title V Renewal
Off-Permit Change	August 30, 2017	Installation of WWTS 20 kilowatts (kW) emergency backup generator and associated 500-gallon liquified propane gas storage tank.
Off-Permit Change	September 19, 2018	Installation of a 238 brake horsepower (BhP)/177.5 kW non-emergency diesel fire water pump and decommissioning of 235 horsepower (Hp) diesel fire water pump compression ignition (CI) engine (Source Code 9064).

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
2611-185-0001-V-03-1	June 7, 2019	PSD modification for the construction and operation of modifications to the paper machine system, increasing the annual paper production limit, incorporating the revisions to 40 CFR 63, Subpart MM into the Title V permit, and removing the Package Boiler (Source Code 1058) from the Title V permit.
Off-Permit Change	June 13, 2019	Installation of a second propane fired IT Systems Emergency Generator (Source Code 9104).
Off-Permit Change	September 13, 2019	Replacement of C.E. Combination Boiler (Source Code 1066) boiler tubes.
Off-Permit Change	October 7, 2019	Modification of the Bark Conveyor within the Wood Residue Handling and Storage Systems (Generic Emissions Group ID No. G006).
Off-Permit Change	December 27, 2021	Replacement of the Emergency Dump Tank Engine (Source Code 9066).
2611-185-0001-V-03-2	December 8, 2022	502(b)(10) modification for the replacement of the Valdosta Mill's Existing Tall Oil Reactor (Emissions Unit ID 8009) with a New Tall Oil Reactor.
Off-Permit Change	June 21, 2023	Installation of a new 22 kW liquified propane gas emergency engine.

D. Process Description

1. SIC Codes(s)

2631, Paperboard Mills; Kraft linerboard
2861, Gum and Wood Chemicals; Turpentine, produced by distillation of pine gum or pine wood and Tall Oil, except skimmings

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)

Linerboard, Turpentine and Tall Oil

3. Overall Facility Process Description

Packaging Corporation of America (PCA) owns and operates a Kraft pulp and paper mill in Valdosta, Georgia (Valdosta Mill). The Valdosta Mill process begins with wood, in the form of tree length logs and/or chips, which are delivered to the Valdosta Mill by truck. The logs are debarked, processed into wood chips, and transferred to the chip pile or sent directly to screening and the chip silos. Purchased chips are transferred to the chip pile via truck dumps. All the chips are screened prior to being processed in the Valdosta Mill's digesters. The bark from the logs and screen rejects is collected and combined with purchased wood residue fuels, stored in a bark storage pile, and burned as biomass fuel in the Valdosta Mill's combination fuel power boilers.

The wood chips are transferred from the woodyard area and charged to one of ten batch digesters, where they are cooked in white liquor (sodium hydroxide/sodium sulfate solution). Recycled black liquor may also be added to provide additional liquid volume. When the cooking process is completed, the digester is opened and the contents are "blown" into a blow tank. Blowing causes an abrupt change in pressure that breaks the cooked chips into fibers, which make up the pulp that is ultimately made into linerboard. The vapors and non-condensable gases (NCGs), as well as the condensed vapors, or pulping condensates, from the digester blow are collected and treated.

The pulp is refined, screened, and washed to remove the excess spent cooking liquor. The spent cooking liquor contains lignin and other impurities from the chips. It appears black in color and is referred to as black liquor. The black liquor is washed from the pulp in the brown stock washers and is then collected and processed in the chemical recovery area of the Valdosta Mill. The washers are enclosed and vapor or gases leaving the washers are collected and treated by thermal oxidation.

The washed pulp, commonly referred to as stock, is removed from the washers and stored in high density stock tanks. The stock leaving these tanks is diluted, further refined, and mixed with internally recycled pulp and certain additives to be processed on the paper machine. The paper machine forms the stock into a continuous web, which is drained, pressed, dried and wound into large rolls of finished linerboard. At the winder operations the large linerboard rolls are cut down to rolls with shorter lengths and smaller diameter for shipment to customers. Product is shipped from the Valdosta Mill by truck and by rail.

The black liquor collected at the brown stock washers is reprocessed back into white liquor for reuse in the chemical recovery cycle. The black liquor is concentrated to 45-55% solids in a 6-effect multiple effect evaporator (MEE), followed by a set of Reynolds Enhanced Crystallizer (REX) concentrators, which bring the liquor solids content up to 68%. A REX unit operated as a high solids crystallizer then brings the liquor solids content up to 73-75% for firing in the recovery furnace.

The Valdosta Mill operates a non-direct contact evaporator (NDCE) recovery furnace (No. 4 Recovery Furnace) and smelt dissolving tank (No. 4 Smelt Dissolving Tank) to burn the black liquor as biomass fuel to simultaneously recover the heat for steam generation and the inorganic

chemicals for regeneration of the cooking chemicals in the causticizing operation. The steam produced is at approximately 1,500 pounds per square inch (psi), and it is used to drive the No. 3 Turbine-Generator to produce electricity for use in the Valdosta Mill and provide steam to the process. The Valdosta Mill can sell some electricity to the outside utility company when more electricity is generated than is needed for the Valdosta Mill operations, or the Valdosta Mill can purchase electrical power from the outside utility as needed. The No. 4 Smelt Dissolving Tank discharges its vent gases into the No. 4 Recovery Furnace with the combustion air.

Green liquor is produced in the No. 4 Smelt Dissolving Tank by the addition of alkaline weak wash to the molten smelt from the No. 4 Recovery Furnace. It is an aqueous solution of sodium carbonate and sodium sulfide that has a greenish tint. The green liquor is processed in the causticizing area, where it is converted back into white liquor by adding it to lime (calcium oxide). The lime converts the sodium carbonate into sodium hydroxide and calcium carbonate. The sodium hydroxide is soluble, and this caustic solution is recovered as white liquor, stored, and reused in the digesters. The calcium carbonate precipitates out of the white liquor and is collected, washed, and calcined in the No. 4 Lime Kiln, which converts the calcium carbonate back to calcium oxide by adding heat. The "reburned" lime is stored in a lime silo and is added again to green liquor. Purchased quicklime can be added to the lime silo for chemical makeup.

The Valdosta Mill also produces turpentine and tall oil as co-products of the Kraft process. Turpentine is recovered by condensing digester relief gases. Tall oil is a co-product of the black liquor evaporation process. In the evaporators, black liquor soap is skimmed from the black liquor and stored. The soap results from the oils in the wood chips and the sodium in the cooking liquors in the digesters. The oils are converted into sodium soaps, which dissolve in the black liquor. When the black liquor is concentrated in the evaporators, the soap becomes insoluble and separates from the liquor. The soap is then skimmed off and converted into tall oil in a batch reactor by mixing it with sulfuric acid. The tall oil is typically sold for use as a feedstock in the chemical industry. Tall oil is similar in British thermal units (Btu) and sulfur content to low sulfur oil and may also be burned in the lime kiln or the power boilers as a biomass fuel.

The Valdosta Mill has two combination-fuel power boilers (Riley Combination Boiler and CE Combination Boiler), and a natural gas-fired power boiler (No. 3 Power Boiler). The latter is the former No. 3 Recovery Furnace that was transitioned to a power boiler in 2014. These power boilers provide 800 lbs of steam, which is used to drive two steam turbine-generators and provide live steam to the process. The Valdosta Mill's Package Boiler was permanently decommissioned in 2018.

The Valdosta Mill utilities also include a water plant that provides process water, cooling water and boiler feedwater, and air compressors that provide instrument and process air. There are seven cooling towers. The Valdosta Mill operates a Florida Department of Environmental Protection

(FLDEP) - National Pollutant Discharge Elimination System (NPDES) permitted wastewater treatment plant that treats process wastewater from the Valdosta Mill prior to discharge to the Withlacoochee River in Florida. The wastewater treatment process includes primary clarification with sludge dewatering ponds and mechanical dewatering presses for the wastewater residuals followed by secondary biological treatment in aerated impoundments. The Valdosta Mill also operates an on-site industrial landfill that is used for mill-generated waste materials only. Previously, the facility also operated a Division-permitted back-up land application system landfill. However, the facility has ceased land application and has no plans to land apply at this location in the future. The facility applied to Division to terminate the permitted landfill. The facility received a letter from the Division dated August 20, 2021 indicating that the land application system permit had been terminated.

4. Overall Process Flow Diagram

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

E. Regulatory Status

1. PSD/NSR

Packaging Corporation of America (PCA), Valdosta is classified as a major source under 40 CFR 52.21, "Prevention of Significant Deterioration" (PSD). The facility is located in an attainment area for all criteria pollutants.

PCA has equipment that are subject to PSD Best Available Control Technology (BACT) limits: They are as follows:

- No. 3A Brown Stock Washer System (Source Code G016) shower water source must be clean water only, which can include fresh water, clean reclaimed water, or clean process condensates as described in the applicable permit condition.

- No. 4 Chemiwasher System (Source Code G039) shower water source used at final showers, i.e., the high pressure showers and knock off showers, must be clean water only, which can include fresh water, clean reclaimed water, or clean process condensates as described in the applicable permit condition.

- The No. 4 Recovery Furnace (Source Code 7040) has the following PSD BACT limits:
  - Nitrogen oxides (NO_x) emissions less than seventy-five (75) parts per million by volume (ppmv) on a dry basis, corrected to 8% oxygen, and expressed as an annual average.
  - Sulfuric acid, mist, vapors, etc., (H_2SO_4) emissions less than 0.042 lb/ton black liquid solids (BLS) fired.

- Per Permit Number 2361-185-0001-V-03-1, the facility operates under its facility-wide production capacity of 662,300 oven-dried tons of paper per year (ODT/yr).

PCA has taken some limits to avoid PSD on certain modifications. They are as follows:

- Sulfur dioxide emissions from the incineration of total reduced sulfur (TRS) compounds from the Low Volume High Concentration (LVHC) non-condensable gas system, High Volume Low Concentration (HVLC) non-condensable gas system and the foul condensate stripper off gases are limited to 40 tons per consecutive 12-month period.

- C.E. and Riley Combination Boilers have a combined stack. Particulate matter emissions from the combined stack of the Riley Combination Boiler (Source Code 1005) and the C.E. Combination Boiler (Source Code 1006) is 302.21 tons per consecutive 12-month period.

- The No. 4 Lime Kiln (Source Code 6063) has the following PSD avoidance limits:
  - 131.2 tons/consecutive 12-month period of total particulate matter.
  - 119.4 tons/consecutive 12-month period of PM_{10}.
  - 116.7 tons/consecutive 12-month period of sulfur dioxide.
  - 281.3 tons/consecutive 12-month period of nitrogen oxides.
  - 117.4 tons/consecutive 12-month period of carbon monoxide.
  - 81.30 tons/consecutive 12-month period of volatile organic compounds.

- The No. 3 Power Boiler (Source Code 7020A) shall only burn natural gas only and has a 12-month heat input limit of 518,000 x 10^6 Btu (16% of rated capacity) per year at full load since it will be operated as a backup unit.

- Per Permit Number 2361-185-0001-V-03-2, the production rate of the replacement Tall Oil Reactor (Source Code 8009) once installed has been limited to 30,750 tons tall oil per year (tTO/yr) per consecutive 12-month period as requested by the facility.

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	Y	✓		
PM_{10}	Y	✓		
$PM_{2.5}$	Y	✓		
SO_2	Y	✓		
VOC	Y	✓		
NO_x	Y	✓		
CO	Y	✓		
TRS	Y	✓		
H_2S	Y	✓		
Individual HAP	Y	✓		

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
Total HAPs	Y	✓		

3. MACT Standards

40 CFR 63 Subpart S – National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. This regulation is applicable to facility equipment as discussed later in this document.

40 CFR 63 Subpart MM –National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills. This regulation is applicable to the No. 4 Lime Kiln (Source Code 6063), No. 4 Recovery Furnace (Source Code 7040), and No. 4 Smelt Dissolving Tank (Source Code 7045).

40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). This regulation is applicable to Non-emergency Lime Kiln #4 Auxiliary Drive 62 hp CI Engine (Source Code 9065), Emergency Dump Tank 62 hp CI Engine (Source Code 9066), Propane IT Systems Emergency Generator 94 hp SI Engine (Source Code 9075), Diesel Hydraulic Pump 103 hp CI Engine (Source Code 9100), 238 BHP/177.5 kW Non-Emergency Diesel Fire Water Pump (Source Code 9101), WWTS 20 kW Emergency Backup Generator (Source Code 9102), 22 kW LPG Emergency Engine (Source Code 9103), and Propane IT Systems Emergency Generator 94 hp SI Engine #2 (Source Code 9104).

40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. This regulation is applicable to the Riley Combination Boiler (Source Code 1005), C.E. Combination Boiler (Source Code 1006), and Power Boiler No. 3 (Source Code 7020A).

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	Y
Program Code 8 – Part 61 NESHAP	N
Program Code 9 - NSPS	Y
Program Code M – Part 63 NESHAP	Y
Program Code V – Title V	Y

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

Per Title V Permit Amendment Number 2631-185-0001-V-02-5, PCA requested an increased production rate of 558,500 oven-dried tons per year (ODT/yr) (equivalent to 600,600 machine-dried tons per year [MDT] at 7.5 percent moisture). The facility was limited to a maximum production rate of no more than 547,620 oven-dried tons of paper (equivalent to 588,691 machine-dried tons of paper at 7.5% moisture) as a 12-month rolling total.

Per Title V Permit Amendment Number 2631-185-0001-V-02-8, PCA increased the annual paper production limit of 558,500 ODT per year on a 12-month rolling total basis to 595,400 ODT per year. The increase to the production limit allowed the facility to realize the actual production capacity achieved by the physical changes that the facility made during the 2013 modification allowed by Title V Air Permit Amendment Number 2631-185-0001-V-02-5.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, the facility modified the paper machine system and increased its production capacity to approximately 662,300 oven-dried tons per year (ODT/yr), which exceeded the annual paper production limit of 595,400 ODT/yr on a 12-month rolling total basis. Therefore, the facility proposed that the current production limit be removed from the permit and be replaced by the new production capacity of 662,300 ODT/yr. The Division made the requested revision.

The facility is also limited on the sale of electrical output to any utility power distribution system during any consecutive twelve-month period to no more than 219,000 MW-hours. This limit, existing and unchanged since the issuance of Title V Permit Number 2631-185-0001-V-02-0, avoids applicability of 40 CFR 72.6(b)(4) [Acid Rain Program], 40 CFR 60 Subpart Da [Standards of Performance for Electric Utility Steam Generating Units] and 40 CFR 96 Subpart AA [Clean Air Interstate Rule Nitrogen Oxides Annual Trading Program General Provisions].

B. Applicable Rules and Regulations

Not Applicable.

C. Compliance Status

Application Number 583567 does not indicate facility-wide compliance issues.

D. Permit Conditions

Permit Condition 2.1.1 was updated with the annual paper production limit per Title V Permit Amendment Number 2631-185-0001-V-03-1.

Permit Condition 2.1.2, unchanged since the issuance of Title V Permit Number 2631-185-0001-V-02-0, limits electrical output as described above.

III. Regulated Equipment Requirements

Since the issuance of the last Title V Renewal permit the following modifications to facility equipment are summarized below per Application Number 583567:

- Package Boiler (Source Code 1058) was decommissioned in 2018. The facility requested removal of this equipment from the permit during the Title V Renewal.

- The Spare Auxiliary Drive 62 hp CI Engine (Source Code 9074) has been removed because the Non-emergency Lime Kiln #4 Auxiliary Drive 62 hp CI Engine (Source Code 9065) and Spare Auxiliary Drive 62 hp CI Engine (Source Code 9074) were duplicate emissions sources. Therefore, the facility requested to remove Spare Auxiliary Drive 62 hp CI Engine (Source Code 9074) from the permit as part of this renewal.

- The facility notified the Division of the installation of a Propane IT Systems Emergency Generator in a May 2019 off-permit change notification. According to the notification, the Propane IT Systems Emergency Generator 94 hp SI Engine #2 (Source Code 9075) replaced the existing Propane IT Systems Emergency Generator 94 hp SI Engine (Source Code 9075). The notification indicated that they were identical emissions units and therefore the Valdosta Mill requested to remove Propane IT Systems Emergency Generator 94 hp SI Engine (Source Code 9075) and replace it with Propane IT Systems Emergency Generator 94 hp SI Engine #2 (Source Code 9075). However, according to recently updated information, this equipment installation was inadvertently identified as a “replacement” in the original Title V renewal application and has continued to be identified as a "replacement” during the other emergency engine updates/correspondence with the Division. Actually, there are two generators: existing Propane IT Systems Emergency Generator 94 hp SI Engine (Source Code 9075) and the Propane IT Systems Emergency Generator 94 hp SI Engine #2 (Source Code 9104). The two Propane IT Systems Emergency Generators are identical, and the same requirements apply to both generators. Therefore, all conditions that apply to Source Code 9075 have been updated to include Source Code 9104 (Propane IT Systems Emergency Generator 94 hp SI Engine #2) as part of this renewal process.

- The 238 BHP/177.5 kW Non-Emergency Diesel Fire Water Pump (Source Code 9101) was installed.

- The Diesel Fire Water Pump 235 hp CI Engine (Source Code 9064) was decommissioned.

- The WWTS 20 kW Emergency Backup Generator (Source Code 9102) and associated 500-gallon liquid petroleum gas (LPG) storage tank were installed.

- The 22 kW LPG-Fired Stationary Emergency SI Engine (Source Code 9103) was installed during an off-permit change notification since issuance of the current permit.

- The Emergency Dump Tank 62 hp CI Engine (Source Code 9066) will be installed during the second quarter of 2024 to replace the existing Emergency Dump Tank 45 hp CI Engine (Source Code 9066). The Emergency Dump Tank 62 hp CI Engine (Source Code 9066) was permitted during an off-permit change notification.

- The C.E. Combination Boiler (Source Code 1066) underwent tube replacements within the boiler to replace two sidewalls of tubes that had reached the end of their useful life per an off-permit change notification.

- The Bark Conveyor within the Wood Residue Handling and Storage Systems (Generic Emissions Group ID No. G006), which is included as a generic emissions group in Attachment B of the facility's Title V Permit, was modified by replacing corroded sections that had become unstable with redesigned sections that reduce the amount of bark and dust debris that escapes during operation per an off-permit change notification.

- The Tall Oil Reactor (Emissions Unit ID 8009) will be replaced with a New Tall Oil Reactor per Title V Permit Amendment Number 2361-185-0001-V-03-2. As part of this renewal, the facility has indicated that the facility has not yet installed the replacement Tall Oil Reactor, which was permitted under Permit No. 2631-185-0001-V-03-2. The facility is currently still operating the existing Tall Oil Reactor.

A. Equipment List for the Process

3.1 Emission Units

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
1005	Riley Combination Boiler	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	C003 C004	Cyclone Separator Venturi Scrubber
1006	C.E. Combination Boiler	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	C005 C004	Cyclone Separator Venturi Scrubber
7020A	Power Boiler No. 3	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	
2012	Pin Chip Silo	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C020	Pin Chip Silo Baghouse
6063	No. 4 Lime Kiln	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart MM 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 391-3-1-.02(2)(gg)	C009	ESP

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
7040	No. 4 Recovery Furnace	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 60 Subpart Db 40 CFR 63 Subpart A 40 CFR 63 Subpart MM 40 CFR 52.21 391-3-1-.02(2)(e) 391-3-1-.02(2)(gg)	C017	ESP
7045	No. 4 Smelt Dissolving Tank	40 CFR 60, Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart MM 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(gg)	7040	No. 4 Recovery Furnace (Smelt Tank vent gases are added as combustion air in the Recovery Furnace)
4360	No. 4 High Density	None	None	None
4361	No. 5 High Density	None	None	None
4362	No. 3 High Density	None	None	None
6076	NCG Thermal Oxidizer	40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(b) 391-3-1-.02(2)(gg)	C010	Caustic Scrubber
G040	Multiple Effect Evaporator System (including associated tanks and coolers)	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(gg)	6076, 6063	Thermal oxidation with alkaline scrubbing: NCG Thermal Oxidizer (primary); No. 4 Lime Kiln (alternate)
4336	Condensate Stripper	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S	6076, 6063	Thermal oxidation with alkaline scrubbing: NCG Thermal Oxidizer (primary); No. 4 Lime Kiln (alternate)
G047	Regulated Pulping Condensate System (including condensate tanks and condensers)	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S	1005, 1006, 6076	Thermal oxidation followed by an alkaline scrubber at: NCG Thermal Oxidizer, C.E. Combination Boiler or Riley Combination Boiler
8009	Tall Oil Reactor	Avoidance of 40 CFR 52.21	None	
G037	Digester System (including No. 1 - 9 Digesters and the No. 1 Blow Tank)	40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(gg)	6076, 6063	Thermal oxidation with alkaline scrubbing: NCG Thermal Oxidizer (primary); No. 4 Lime Kiln (alternate)
G038	Digester 10 System (including associated tanks, condensers and coolers and LVHC Scrubber)	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(gg)	6076, 6063	Thermal oxidation with alkaline scrubbing: NCG Thermal Oxidizer (primary); No. 4 Lime Kiln (alternate)
G039	No. 4 Chemiwasher System (including associated tanks)	40 CFR 52.21 40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S	1005, 1006, 6076	Thermal oxidation followed by an alkaline scrubber at: NCG Thermal Oxidizer, C.E. Combination Boiler or Riley Combination Boiler

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
G033	Turpentine System (including associated Weir Boxes, tanks, decanters and hotwell)	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S	6076, 6063	Thermal oxidation with alkaline scrubbing: NCG Thermal Oxidizer (primary); No. 4 Lime Kiln (alternate)
G045	Lime Silo - Truck Unloading Station	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C008	Eductor Scrubber
6025	Lime Slaker	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C007	Lime Slaker Dust Suppression
G030	Wastewater Treatment Operations	None	None	None
G042	Sodium Makeup Chemical System	None	None	None
G035	Weak Liquor System (including associate tanks)	None	None	None
G014	Paper Machine System	40 CFR 52.21	None	None
G016	No. 3A Brown Stock Washer System (including No. 3A drum washer and associated tanks)	40 CFR 52.21 40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S	1005, 1006, 6076	Thermal oxidation followed by an alkaline scrubber at: NCG Thermal Oxidizer, C.E Combination Boiler, or Riley Combination Boiler
9065	Non-emergency Lime Kiln #4 Auxiliary Drive 62 hp CI Engine	40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9066	Emergency Dump Tank 62 hp CI Engine	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9075	Propane IT Systems Emergency Generator 94 hp SI Engine	40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9100	Diesel Hydraulic Pump 103 hp CI Engine	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9101	238 BHP/177.5 kW Non-Emergency Diesel Fire Water Pump	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9102	WWTS 20 kW Emergency Backup Generator	40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9103	22 kW LPG Emergency Engine	40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
9104	Propane IT Systems Emergency Generator 94 hp SI Engine #2	40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None

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

B. Equipment & Rule Applicability

Emission and Operating Caps:
As discussed above in Section I.E.1 of this document, the facility has PSD BACT and PSD avoidance limits as previously described.

Rules and Regulations Assessment:

Part 60, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR 60) - New Source Performance Standards (NSPS) Subpart A – General Provisions
Except as provided in Subparts B and C of 40 CFR 60, the provisions of this regulation apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility [40 CFR 60.1(a)]. Any new or revised standard of performance promulgated pursuant to Section 111(b) of the Clean Air Act applies to equipment located at the Packaging Corporation of America site for which the construction or modification is commenced after the date of publication in 40 CFR 60 of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that equipment and/or processes [40 CFR 60.1(b)].

40 CFR 60 Subpart Db NSPS for Industrial-Commercial-Institutional Steam Generating Units
This regulation applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (Mw) (100 million British thermal units per hour (10^6 Btu/hr)) [40 CFR 60.40b(a)].

No. 4 Recovery Furnace (Source Code 7040) is subject to this regulation only when firing natural gas. The following sections of this regulation are applicable to No. 4 Recovery Furnace when firing natural gas: 40 CFR 60.10b; 40 CFR 60.40b(a); 40 CFR 60.41b; 40 CFR 60.42b(k)(1)(2); 40 CFR 60.44b(c); and 40 CFR 60.49b(a),(d),(o).

40 CFR 60 Subpart BB NSPS for Kraft Pulp Mills
This regulation is applicable in pulp mills where kraft pulping is combined with neutral sulfite semichemical pulping, the provisions of 40 CFR 60, Subpart BB are applicable when any portion of the material charged to an affected facility is produced by the kraft pulping operation. [40 CFR 60.280(a)] The regulation is applicable to sources which commenced construction or modification after September 24, 1976 [40 CFR 60.280(b)]. This regulation is applicable to the following affected facilities in kraft pulp mills: Digester system, brown stock washer system, multiple-effect evaporator system, recovery furnace, smelt dissolving tank, lime kiln, and condensate stripper system.

The following facility equipment is subject to this regulation as listed below:

Source ID	Equipment Description
6063	No. 4 Lime Kiln
7040	No. 4 Recovery Furnace

Source ID	Equipment Description
7045	No. 4 Smelt Dissolving Tank
G040	Multiple Effect Evaporator System (including associated tanks and coolers)
4336	Condensate Stripper
G047	Regulated Pulping Condensate System (including condensate tanks and condensers)
G038	Digester 10 System (including associated tanks, condensers and coolers and LVHC Scrubber)
G039	No. 4 Chemiwasher System (including associated tanks)
G033	Turpentine System (including associated Weir Boxes, tanks, decanters and hotwell)
G016	No. 3A Brown Stock Washer System (including No. 3A drum washer and associated tanks)
6076	NCG Thermal Oxidizer

40 CFR 60 Subpart IIII NSPS for Stationary Compression Ignition Internal Combustion Engines
This regulation is applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of 40 CFR 60.4200. For the purposes of this regulation, the date that construction commences is the date the engine is ordered by the facility [40 CFR 62.4200(a)].

This regulation is applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005 [40 CFR 60.4200(a)(4)]. Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in 40 CFR 60.4201 for their 2007 model year and later stationary CI ICE, as applicable [40 CFR 60.4204(b)]. Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212 [40 CFR 60.4204(d)]. Per 40 CFR 60.4211(f) the engine must be operated as an emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) 40 CFR 60.4211(f)(3). In order for the engine to be considered an emergency stationary ICE under this regulation, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through 40 CFR 60.4211(f)(3), is prohibited. If the facility does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through 40 CFR 60.4211(f)(3), the engine will not be considered an emergency engine under this regulation and must meet all requirements for non-emergency engines.

Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants [40 CFR 60.4205(c)] over the entire life of the engine [4 0 CFR *6*0.4206]. Owners and operators of CI fire pump engine that is manufactured during or after the applicable model year that applies to the fire pump engine power rating in Table 3 to 40 CFR 60, Subpart IIII and must comply with the emission standards specified in 40 CFR 60.4205(c), the owner/operator must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c), as applicable, for the same model year and maximum

(or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.421(g) [40 CFR 60.421(c)]. The facility provided an EPA certification for the proposed engines.

The following facility equipment is subject to this regulation:

Source ID	Equipment Description
9066	Emergency Dump Tank 62 hp CI Engine
9100	Diesel Hydraulic Pump 103 hp CI Engine
9101	238 BHP/177.5 kW Non-Emergency Diesel Fire Water Pump

40 CFR 60, Subpart JJJJ NSPS for Stationary Spark Ignition Internal Combustion Engines
Per 40 CFR 60.4233(d), owners and operators of stationary spark ignition (SI) ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to 40 CFR 60, Subpart JJJJ for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

According to Table 1 of 40 CFR 60, Subpart JJJJ, emergency generators greater than 25 Hp but less than 130 Hp with a manufacturing date of January 1, 2009 must limit carbon monoxide emissions to 387 g/Hp-hr and nitrogen oxides emissions to 10 g/Hp-hr (in terms of NO_x and HC). Owners or operators of a stationary SI internal combustion engine that must comply with the emission standards specified in 40 CFR 60.4233(d) must demonstrate compliance according to one of the methods specified in paragraphs 40 CFR 60.4243 (b)(1) and 40 CFR 60.4243(b)(2). The facility must (1) purchase an engine certified according to procedures specified in 40 CFR 60, Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4244(a), or (2) purchase a non-certified engine and demonstrate compliance with the emission standards specified in 40 CFR 60.4233(d) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to 40 CFR 60.4243 (b)(2)(i) and 40 CFR 60.4243(b)(2)(ii) [40 CFR 60.4243(b)]. Facilities with certified stationary SI internal combustion engine and control device that are operated and maintained according to the manufacturer's emission-related written instructions, must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required by the facility. The facility must also meet the requirements as specified in 40 CFR 1068, Subparts A through D, as applicable. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance [40 CFR 60.4243(a)(1)].
The facility must operate, an emergency stationary ICE, according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through CFR 60.4243(d)(3). Per 40 CFR 60.4237(c), an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, the facility must install a non-resettable hour meter upon startup of the generator.

The following facility equipment is subject to this regulation:

Source ID	Equipment Description
9075	Propane IT Systems Emergency Generator 94 hp SI Engine
9102	WWTS 20 kW Emergency Backup Generator
9103	22 kW LPG Emergency Engine
9104	Propane IT Systems Emergency Generator 94 hp SI Engine #2

Part 63, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR 63)- National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart A – General Provisions
This regulation contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. Packaging Corporation of America is a major source of HAPs under this regulation and equipment located at the site are subject to a specified standard under this regulation.

40 CFR 63 Subpart S NESHAP for the Pulp and Paper Industry
This regulation is applicable to processes that produce pulp, paper, or paperboard; that are located at a plant site that is a major source as defined in 40 CFR 63.2, and use one of the processes and materials specified in 40 CFR 63.440)(a). In general, this regulation requires a regulated facility to, (1) Collect and incinerate pulping process vent emissions, (2), Collect and control bleaching process vent emissions with a caustic scrubber, (3) Eliminate the use of certain bleaching chemicals, and (4) Collect and treat process condensate streams to remove HAPs through biological treatment or steam stripping (Kraft mills only).

On July 31, 2012, the U.S. Environmental Protection Agency (EPA) issued final amendments to regulation which eliminated the exemptions to emission limits during periods of startup, shutdown and malfunction and requires compliance testing as part of each five year permit review cycle rather than a one-time-only test. The changes to this regulation were incorporated as part of Permit Number 2361-185-0001-V-02-5.

In 2023, this regulation was updated to address the test method for soluble the 5-day biochemical oxygen demand (BOD_5) in the effluent stream. However, no changes to the permit should be needed due to the Subpart S updates.

According to Application Number 583567, the following facility equipment is subject to this regulation:

Source ID	Equipment Description
G040	Multiple Effect Evaporator System (including associated tanks and coolers)
4336	Condensate Stripper

Source ID	Equipment Description
G037	Digester System (including Nos. 1-9 Digesters and the No. 1 Blow Tank)
G047	Regulated Pulping Condensate System (including condensate tanks and condensers)
G038	Digester 10 System (including associated tanks, condensers and coolers and LVHC Scrubber)
G039	No. 4 Chemiwasher System (including associated tanks)
G033	Turpentine System (including associated Weir Boxes, tanks, decanters and hotwell)
G016	No. 3A Brown Stock Washer System (including No. 3A drum washer and associated tanks)
6076	NCG Thermal Oxidizer

40 CFR 63 Subpart MM NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

This regulation applies to each Kraft, soda, sulfite, or stand-alone semi-chemical pulp mill that is a major source of HAPs [40 CFR 63.860(a)]. This regulation regulates the emissions from the pulp mill combustion sources for chemical recovery processes that involve combustion of spent pulping liquor, which are the pulp mill combustion sources (i.e. recovery furnaces, smelt dissolving tanks, and lime kilns).

The following facility equipment is subject to this regulation:

Source ID	Equipment Description
6063	No. 4 Lime Kiln
7040	No. 4 Recovery Furnace
7045	No. 4 Smelt Dissolving Tank

The U.S. EPA published updated amendments to 40 CFR Part 63, Subpart MM on October 11, 2017. Subpart MM amendments applicable to the Mill include:

- Opacity exceedance allowances for all recovery furnaces and lime kilns equipped with electrostatic precipitators (ESPs) have been revised from 6% of the quarterly operating time to 2% for recovery furnaces and 3% for lime kilns of the operating time within any semiannual period, per 40 CFR 63.864(k)(2)(i) and (iii). Since the No. 4 Recovery Furnace and the No 4. Lime Kiln are equipped with an ESP, their opacity exceedance allowance is 2% and 3% respectively.

- Recovery furnaces and lime kilns equipped with ESPs are required to maintain proper operation of the ESP's automatic voltage control (AVC), per 40 CFR 40 CFR 63.864(e)(1).

- Data recorded by CPMS may be used for establishing operating limits based on the specific procedures specified in 40 CFR 63.864(j). The amendments removed the startup, shutdown, and malfunction (SSM) exemption as well as the requirement to maintain an SSM Plan.

- General submittal requirements for recordkeeping and reporting were revised, including, but not limited to the frequency for submitting excess emissions reports, electronic submittal of performance test reports, and electronic submittal of initial notifications and compliance status notifications.

Per 40 CFR 63.863(c), the Subpart MM amendments were effective on October 11, 2017, and all existing affected sources must comply within two years (i.e., by October 11, 2019). However, as stated in 40 CFR 63.863(c)(1) and (2), the first performance test must be conducted by October 13, 2020 and submitted through the U.S. EPA's Compliance and Emissions Data Reporting Interface (CEDRI) within 60 days of the performance test. Thereafter, performance tests must be completed within five years of the previous performance test, and performance test data must be submitted through CEDRI within 60 days of the completed performance test.

40 CFR 63 Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines [RICE]
This regulation is applicable to RICEs that are located at a major source of hazardous air pollutants (HAPs) [40 CFR 63.6585].

Emergency stationary RICE means any stationary RICE whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines [40 CFR 63.6675].

An existing CI stationary RICE or an emergency stationary RICE are not required to comply with the emission limitations in Tables 1a and 2a of 40 CFR 63, Subpart ZZZZ or operating limitations in Tables 1b and 2b of 40 CFR 63, Subpart ZZZZ [40 CFR 63.6600(c)].

Existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, must comply with the emission limitations in Table 2c to this subpart which are applicable. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and Table 4 to 40 CFR 63, Subpart ZZZZ [40 CFR 63.6602].

A new stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source commenced construction or reconstruction on or after June 12, 2006 [40 CFR 63.6590(a)(2)(ii)]. Per 40 CFR 63.6590(c), a new emergency stationary RICE with a site rating of less

than or equal to 500 brake HP located at a major source of HAP emissions complies with the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ.

The following table, included in the updated narrative of the Title V Permit application summarizes the facility's engines and rule applicability.

Table 4-2 Engine Applicability and Construction Dates

Engine Name (Source Code)	Engine Construction Date or Model Year	Installation Date	Applicable Requirements/ Standards
Non-emergency Lime Kiln #4 Auxiliary Drive 62 hp CI Engine (9065)	Pre-2006	April 2008	40 CFR Part 63, Subpart ZZZZ
Emergency Dump Tank 62 hp CI Engine (9066)	June 2017	2nd Quarter 2024	40 CFR Part 60, Subpart IIII 40 CFR Part 63, Subpart ZZZZ
Propane IT Systems 94 Hp Emergency Generator (9075)	2018	March 29, 2018	40 CFR Part 60, Subpart JJJJ 40 CFR Part 63, Subpart ZZZZ
Diesel Hydraulic Pump 103 hp CI Engine (9100)*	2015	November 2016	40 CFR Part 60, Subpart IIII 40 CFR Part 63, Subpart ZZZZ
238 BHP/ 177.5 kW Non Emergency Diesel Fire Water Pump (9101)	2018	September 2018	40 CFR Part 60, Subpart IIII 40 CFR Part 63, Subpart ZZZZ
WWTS 20 kW Emergency Backup Generator (9102)**	2017	August 2017	40 CFR Part 60, Subpart JJJJ 40 CFR Part 63, Subpart ZZZZ
22 kW LPG Emergency Engine (9103)**	January 2022	June 2023	40 CFR Part 60, Subpart JJJJ 40 CFR Part 63, Subpart ZZZ
Propane IT Systems 94 Hp Emergency Generator #2 (9104)	2018	September 26, 2019	40 CFR Part 60, Subpart JJJJ 40 CFR Part 63, Subpart ZZZZ

*Engine complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII as discussed above.

**Engine complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart JJJJ as discussed above.

40 CFR 63, Subpart DDDDD NESHAP for Industrial, Commercial, Institutional Boilers and Process Heaters

This regulation is applicable to new, reconstructed, or existing industrial, commercial, and institutional boilers and process heaters located at major sources of HAP [40 CFR 63.7480 and 40 CFR 63.7490(a)]. The regulation is applicable to Combination Boilers and Power Boiler No. 3 at the facility.

On December 5, 2022, updates to 40 CFR 63 Subpart DDDDD that were proposed on October 6, 2022 were finalized. As a result, revisions were made to 34 different emission limits which it had previously promulgated in 2011 and amended in 2013. Of these 34 emission limits, 28 of the limits are more

stringent and six of the limits are less stringent than the previously promulgated emission limits. While the CO emission limits were revised, no changes to CO limits for boilers that demonstrate compliance on a 30-day rolling average basis using a CO continuous emissions monitoring system (CEMS) were promulgated. The emissions standards differ based upon on the subcategories that apply to a boiler under the rule. While most of the revised standards remain unchanged from the 2020 proposed rule amendments, three emission limits have been reduced further: HCl standards for new solid fuel units and new liquid fuel units and the PM standard for existing biomass fluidized bed boilers.

The final rule amendments reaffirmed EPA's stance that the original definitions for new and existing units remain unchanged from the final rule promulgated in 2013. Therefore, per 40 CFR 63.7490(b) through 40 CFR 63.7490(d), a new unit is any unit constructed or reconstructed after June 4, 2010 (the original date of the proposed rule for the Boiler MACT) and an existing unit is any unit that is not new or reconstructed. EPA acknowledges that, by maintaining these 2013 definitions, certain units may require additional control technologies or monitoring equipment to demonstrate compliance with the amended standards. Therefore, EPA finalized a deadline of from the publication date of the rule in the Federal Register to demonstrate compliance with the revised limits. Before this new compliance date, facilities must continue to comply with the previously applicable standards under 40 CFR 63, Subpart DDDDD.

This final rule amendment also documents EPA's response to The D.C. Circuit Court remanding to EPA the use of CO as a surrogate for organic HAP and EPA's decision to establish a 130 parts per million (ppm) CO standard for certain subcategories, providing additional information in support of these determinations. This standard will not change as part of this amendment of this regulation.

As part of this update, EPA also finalized technical corrections to the existing regulation, including:

- A grammatical change to 40 CFR 63.7500(a);
- Removal of the requirement to collect samples during the test period at 1-hour intervals in 40 CFR 63.7521(c)(1)(ii);
- Removal of various references to a future date of a final performance specification for HCl CEMS as PS 18, the performance specification for Gaseous HCl and Procedure 6, QA requirements for Gaseous HCl CEM were promulgated July 7, 2017;
- Clarification that the establishment of a pH operating limit is not required for a PM wet scrubber in 40 CFR 63.7530(b)(4)(iii) [Note that a pH operating limit is still required for wet acid gas scrubbers];
- Clarification that certification requirements only apply to PM CEMS and not to PM continuous parameter monitoring systems (PM CPMS) in 40 CFR 63.7540(a)(9), as no performance specification exists for PM CPMS ;
- Technical correction of the definition of "Other Gas 1 Fuel" in 40 CFR 63.7575 to clarify that the maximum concentration is "40 micrograms per cubic meter of gas" rather than "40 micrograms per cubic meter of mercury";
- Addition of the definition of "12-month Rolling Average" in 40 CFR 63.7575;
- Technical correction of the definition of "Steam Output" in 40 CFR 63.7575 to refer to "steam headers" instead of "steam heaters";
- Revision of the alternative PM emission standard for new stoker/sloped grate/others designed to burn kiln-dried biomass fuel in Table 1 to Subpart DDDDD from 4.2E-01 lb/MMBtu to 4.3E-01 lb/MMBtu to correct a rounding error;

- Removed footnote "a" from Item 12b in Table 1 to Subpart DDDDD related to the TSM limit for fuel cell units designed to burn biomass/bio-based solids, therefore only allowing performance testing to be skipped if emissions are below 75% of the limit for two consecutive years;
- Add footnote "a" to Item 1a for the solid fuel HCl limit, Item 14a for the liquid fuel HCl limit, and Item 15b in Table 1 to Subpart DDDDD for the light liquid fuel TSM limit;
- Removed footnote "a" from Items 14b and 16b in Table 2 to Subpart DDDDD related to the Hg limit for units designed to burn liquid fuel and the PM limit for units designed to burn light liquid fuel, therefore only allowing performance testing to be skipped if emissions are below 75% of the limit for two consecutive years;
- Revision of footnote "b" in Table 7 to Subpart DDDDD to state that when multiple performance tests are conducted, the maximum operating load should be selected as the lower of the maximum values established during performance testing; and
- Revision of the equation reference in Table 8 to Subpart DDDDD for boilers that comply with emission limits using fuel analysis

The following table summarizes pollutants with emission limits affected by this regulatory update for applicable subcategories.

Subcategory	Pollutant
New – Solid Fuel	HCI
New – Dry Biomass Stoker/Sloped Grate	TSM*
New – Biomass Fluidized Bed	CO, PM, TSM
New – Biomass Suspension Burner	CO, TSM*
New – Biomass Hybrid Suspension Grate	CO
New – Biomass Dutch Oven/Pile Burner	PM
New – Biomass Fuel Cell	PM
New – Wet Biomass Stoker/Sloped Grate	CO, PM
New – Liquid Fuel	HCI
New – Heavy Liquid Fuel	PM, TSM
New – Process Gas	PM*
Existing – Solid Fuel	HCI, Hg
Existing – Coal	PM
Existing – Coal Stoker	CO
Existing – Dry Biomass Stoker/Sloped Grate	TSM*
Existing – Wet Biomass Stoker/Sloped Grate	CO, PM, TSM
Existing – Biomass Fluidized Bed	CO, PM, TSM
Existing – Biomass Suspension Burner	PM, TSM*
Existing – Biomass Dutch Oven/Pile Burner	PM
Existing – Liquid Fuel	Hg
Existing – Heavy Liquid Fuel	PM
Existing – Non-continental Liquid Fuel	PM
Existing – Process Gas	PM*

*Indicates a less stringent limit compared to the previously promulgated emission limits.

The following table summarizes the changes to emission limits for applicable subcategories per the update of this regulation.

Subcategory	Pollutant*	2013 final rule emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)	2022 Revised emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)
New—Solid	HCl	2.2E-02	2.1E-04
New—Dry Biomass Stoker	TSM	4.0E-03	5.0E-03
New—Biomass Fluidized Bed	CO	230	130
New—Biomass Fluidized Bed	PM (TSM)	9.8E-03 (8.3E-05)	4.1E-03 (8.4E-06)
New—Biomass Suspension Burner	CO	2,400	220
New—Biomass Suspension Burner	TSM	6.5E-03	8.0E-03
New—Biomass Hybrid Suspension Grate	CO	1,100	180
New—Biomass Dutch Oven/Pile Burner	PM	3.2E-03	2.5E-03
New—Biomass Fuel Cell	PM	2.0E-02	1.1E-02
New—Wet Biomass Stoker	CO	620	590
New—Wet Biomass Stoker	PM	0.03	0.013
New—Liquid	HCl	4.4E-04	1.5E-04
New—Heavy Liquid	PM (TSM)	1.3E-02 (7.5E-05)	1.9E-03 (6.4E-06)
New—Process Gas	PM	6.7E-03	7.3E-03
Existing—Solid	HCl	2.2E-02	2.0E-02
Existing—Solid	Hg	5.7E-06	5.4E-06
Existing—Coal	PM	4.0E-02	3.9E-02
Existing—Coal Stoker	CO	160	150
Existing—Dry Biomass Stoker	TSM	4.0E-03	5.0E-03
Existing—Wet Biomass Stoker	CO	1,500	1,100
Existing—Wet Biomass Stoker	PM (TSM)	3.7E-02 (2.4E-04)	3.4E-02 (2.0E-04)
Existing—Biomass Fluidized Bed	CO	470	210
Existing—Biomass Fluidized Bed	PM (TSM)	1.1E-01 (1.2E-03)	7.4E-03 (6.4E-05)

Subcategory	Pollutant*	2013 final rule emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)	2022 Revised emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)
Existing—Biomass Suspension Burners	PM (TSM)	5.1E-02 (6.5E-03)	4.1E-02 (8.0E-03)
Existing—Biomass Dutch Oven/Pile Burner	PM	2.8E-01	1.8E-01
Existing—Liquid	Hg	2.0E-06	7.3E-07
Existing—Heavy Liquid	PM	6.2E-02	5.9E-02
Existing—Non-Continental Liquid	PM	2.7E-01	2.2E-01
Existing—Process Gas	PM	6.7E-03	7.3E-03

*Facilities have the option of complying with the heat input-based limits (lb/MMBtu of Heat Input) or the alternative output-based limits (lb/MMBtu of Steam Output or lb/MWh).

The Combination Boilers will be considered as existing units under 40 CFR 63, Subpart DDDDD. Existing boilers were required to comply with this regulation no later than January 31, 2016, except as provided in 40 CFR 63.6(i) [40 CFR 63.7495(b)]. Applicability of this regulation to the Combination Boilers was added Per Permit Number 2361-185-0001-V-02-7.

The Combination Boilers, which are both designed for burning wet biomass fuel, meet criteria for two subcategories under 40 CFR 63, Subpart DDDDD. Per 40 CFR 63.7575, a stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 40 percent moisture on an annual heat input basis. Per 40 CFR 63.7575, a hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Emission limits are different for these subcategories for PM and carbon monoxide (CO) emissions. Therefore, PCA requested and received a determination from U.S. EPA Region 4 (included with Application Number 22133) concurring with PCA that the Combination Boilers should be classified as hybrid suspension grate units designed to burn biomass/bio-based solid subcategory.

Riley Combination Boiler (Source Code 1005) and C.E. Combination Boiler (Source Code 1006), equipped with a continuous oxygen trim systems, are subject to the following sections of the regulation: 40 CFR 63.7499(h), 40, CFR 63.7500(a), 40 CFR 7500(a)(1), 40 CFR 7500(a)(2), and 40 CFR 63, Table 1, Table 2, Table 3, Table 4, Table 5, Table 6, Table 13, Table 15 to 40 CFR 63 Subpart DDDDD.

Per Permit Number 2361-185-0001-V-02-6, Power Boiler No. 3 was converted from a recovery furnace to a larger rated heat input capacity backup boiler (approximately 360 x 10^6 Btu/hr). The Power Boiler No. 3 fires only natural gas. It was determined that the Power Boiler No. 3 is a new

source under this regulation. Per 40 CFR 63.7575 a *unit designed to burn gas 1 subcategory* includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition. Based on this definition, Power Boiler No. 3 is considered to be a new unit designed to burn gas 1.

The Power Boiler No. 3, equipped with a continuous oxygen trim system, is subject to 40 CFR 60.7495, 40 CFR 63.7500, 40 CFR 63.7515(d) 40 CFR 7540, 40 CFR 7550, 40 CFR 7560, 40 CFR 757540 CFR 7590, and Table 3 to 40 CFR 63 Subpart DDDDD.

Georgia Rule for Air Quality Control (Georgia Rule) 391-3-1-.02(2)(b) Emission Limitations and Standards Visible Emissions
This regulation limits opacity to less than forty (40) percent, except as may be provided in other more restrictive or specific rules or subdivisions of Georgia Rule 391-3-1-.02(2). This limitation applies to direct sources of emissions such as stationary structures, equipment, machinery, stacks, flues, pipes, exhausts, vents, tubes, chimneys or similar structures. This regulation is applicable to the Combination Boilers, No. 4 Lime Kiln, No. 4 Smelt Dissolving Tank, NCG Thermal Oxidizer/Scrubber System, Lime Handling System, Lime Slaker and Pin Chip Silo.

Georgia Rule 391-3-1-.02(2)(d) Emission Limitations and Standards Fuel Burning Equipment
This regulation limits particulate emissions from fuel burning equipment.

For fuel burning equipment in operation or under construction on or before January 1, 1972 with a heat input greater than 10 million Btu heat input per hour, and equal to or less than 2,000 million Btu heat input per hour, allowable particulate emissions shall be calculated using the following equation:

$P = 0.7\ [10/R]^{0.202}$ pounds per million BTU heat input,

Where:

P = allowable weight of emissions of fly ash and/or other particulate matter in pounds per million Btu heat input

R = heat input of fuel-burning equipment in million Btu per hour.
This particulate emission limit is applicable to the Combination Boilers and Power Boiler No. 3.

This regulation also limits the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity for equipment that has been extensively modified since January 1, 1972. This opacity limit is applicable to the Power Boiler No. 3.

For fuel burning equipment that has been extensively modified since January 1, 1972 with a heat input greater than 250 million Btu heat input per hour, nitrogen emissions are limited as follows:

- when firing coal--0.7 pounds of NO_x per million Btus of heat input;

- when firing oil--0.3 pounds of NO_x per million Btus of heat input;
- when firing gas--0.2 pounds of NO_x per million Btus of heat input;
- when different fuels are burned simultaneously in any combination the applicable standard, expressed as pounds of NO_x per million BTUs of heat input, shall be determined by proration. Compliance shall be determined by using the following formula:

  $[x(0.20) + y(0.30) + z(0.70)] / (x + y + z)$
  where:

  x = percent of total heat input derived from gaseous fuel;
  y = percent of total heat input derived from oil;
  z = percent of total heat input derived from coal.

The NO_x limit of 0.2 pounds of NO_x per million Btus of heat input would apply to the Power Boiler No. 3 because it will only fire natural gas.

Georgia Rule 391-3-1-.02(2)(e) – Emission Limitations and Standards – Particulate Emission from Manufacturing Processes
Equipment as specified in Table 3.1 are subject to Georgia Rule 391-3-1-.02(2)(e)1(i) because it is a source of particulate emissions and will be put into operation or extensively altered after July 2, 1968. Georgia Rule 391-3-1-.02(2)(e)1(i) limits PM emissions based on the following equations:

$E = 4.1P^{0.67}$; for process input weight rate up to and including 30 tons per hour.

$E = 55P^{0.11} - 40$; for process input weight rate greater than 30 tons per hour.

In the equation, E is the emission rate in pounds per hour and P is the process input weight rate in tons per hour. This regulation is applicable to the Pin Chip Silo, No. 4 Lime Kiln, No. 4 Recovery Furnace, No. 4 Smelt Dissolving Tank, Lime Silo, and Lime Slaker.

Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide
This regulation regulates fuel sulfur content, by weight. All fuel burning sources greater than or equal to 100 million BTUs of heat input per hour shall not burn fuel containing more than 3 percent sulfur, by weight. This regulation is applicable to the No. 4 Lime Kiln, and CE and Riley Combination Boilers.

Georgia Rule 391-3-1-.02(2)(gg) – Kraft Pulp Mills
This regulation limits TRS emissions from any Kraft pulp mill in operation or under construction contract, on or before September 24, 1976 construction contract, on or before September 24, 1976 for the recovery furnace, digester system or multiple-effect evaporator system, smelt dissolving tank and lime kiln. The No. 4 Lime Kiln, No. 4 Recovery Furnace, No. 4 Smelt Dissolving Tank, Multiple Effect Evaporator System, Digester System, Digester 10 System and NCG Thermal Oxidizer are subject to the limitations of this regulation as specified in the permit.

C. Permit Conditions

Permit Conditions 3.2.3 and 3.2.4 specify No. 3A Brown Stock Washer System and No. 4 Chemiwasher System PSD BACT limits, respectively, discussed above in this document. These conditions were modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Condition 3.2.8 limited the operating hours for the Package Boiler. This was a PSD avoidance limit. This condition has been deleted since the Package Boiler has been removed from the permit per Title V Permit Amendment Number 2361-185-0001-V-03-1.

Former Permit Condition 3.2.10 was added to limit the replacement Tall Oil Reactor production rate to 30,750 tTO/yr per consecutive 12-month period as discussed above in this document per Title V Permit Amendment Number 2361-185-0001-V-03-2. As part of this renewal, the facility has indicated that the facility has not yet installed the replacement Tall Oil Reactor, which was permitted under Permit No. 2631-185-0001-V-03-2. The facility is still operating the existing Tall Oil Reactor, to which the operating limit does not apply. As a result, the facility has requested that the condition be updated to indicate that the operating limit becomes applicable when the replacement Tall Oil Reactor is installed. The draft renewal permit includes this language.

Former Permit Condition 3.3.5 required compliance with applicable provisions for 40 CFR 60, Subpart Dc. This condition has been deleted since the Package Boiler has been removed from the permit per Title V Permit Amendment Number 2361-185-0001-V-03-1.

Former Permit Condition 3.3.13 specifies the 40 CFR 60 Subpart BB limits for the TRS/NCG Controls as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Conditions 3.3.16 and 3.3.17 specify Cluster Rule limits for applicable vents as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Conditions 3.3.18 through 3.3.20 specify Cluster Rule limits for applicable condensates as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Conditions 3.3.21 through 3.3.24 specify Cluster Rule limits for applicable facility treatment as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Condition 3.3.25 specifies applicability of 40 CFR 63, Subpart MM. This condition was modified to add 40 CFR 63.860(d) and 40 CFR 63.863(c) to the rule citation per Title V Permit Amendment Number 2361-185-0001-V-03-1.

Former Permit Conditions 3.3.27 and 3.3.32 were reserved conditions. These conditions were removed as part of this Title V Renewal.

Former Permit Condition 3.3.29 requires compliance with applicable emission limits and work practice standards of 40 CFR 63, Subpart DDDDD for the Combination Boilers and Power Boiler No.

3. This condition was modified as part of this renewal to reference applicable tables per the recent updates to 40 CFR 63, Subpart DDDDD.

Former Permit Condition 3.3.34 specifies the 40 CFR 63 Subpart DDDDD limits for the Power Boiler No. 3 as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Condition 3.3.36, 3.3.41 and 3.3.42 specify the 40 CFR 63 Subpart DDDDD limits for the C.E. and Riley Combination Boilers as indicated in the table below. This condition was modified as part of this permit renewal to correctly reference the applicable permit condition numbers.

Former Permit Condition 3.3.39 specifies the specific HCl, Mercury, Filterable PM (or TSM) and CO emission limitations for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was updated to reflect the updates to 40 CFR 63, Subpart DDDDD as discussed above.

Former Permit Condition 3.3.41 specifies continuous compliance demonstration per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified as part of this Title V Renewal to remove reference to the initial compliance demonstrations since they have been completed.

Former Permit Conditions 3.3.43 and 3.3.44 specified the regulatory requirements of 40 CFR 63, Subpart ZZZZ to applicable facility engines. Former Permit Condition 3.3.43 and Former Permit Condition Number 3.3.44 were modified and deleted, respectively, as part of this Title V Renewal to address engines changes at the facility as indicated above in this document. Former Permit Condition 3.3.44 was also modified as part of this renewal to require 5-year tune-up requirements for the Power Boiler No. 3 since it is equipped with a continuous oxygen trim system.

As part of this Title V Renewal Permit Conditions 3.3.43 through 3.3.46 were added to specify the requirements of 40 CFR 60, Subpart IIII to applicable engines. These conditions are summarized in the table below.
As part of this Title V Renewal Permit Conditions 3.3.47 through 3.3.48 were added to specify the requirements of 40 CFR 60, Subpart JJJJ to applicable engines. These conditions are summarized in the table below.

Former Permit Condition 3.4.7 limited the particulate emissions from the Package Boiler as specified in Georgia Rule 391-3-1-.02(2)(d). This condition has been deleted since the Package Boiler has been removed from the permit per Title V Permit Amendment Number 2361-185-0001-V-03-1.

Former Permit Condition 3.4.8 limited opacity from the Package Boiler per Georgia Rule (d). This condition has been deleted since the Package Boiler has been removed from the permit per Title V Permit Amendment Number 2361-185-0001-V-03-1.

Former Permit Condition 3.5.1 authorized the facility to operate the Package Boiler only when one of the other boilers is down. This condition has been deleted since the Package Boiler has been removed from the permit per Title V Permit Amendment Number 2361-185-0001-V-03-1.

As part of this renewal, Table 3.1 will be updated as applicable to address addition, removal of equipment, applicable regulations, and/or permit conditions.

The following table summarizes applicable emission limits included in this renewal.

Summary of Permit Conditions in Section 3.0 of Permit Number 2631-185-0001-V-04-0

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
Section 3.2 – Equipment Emission Caps and Operating Limits				
3.2.1	3.2.1	No	NA	This condition limits sulfur dioxide (SO_2) emissions from the NCG Thermal Oxidizer (Source Code 6076) incineration of Total Reduced Sulfur (TRS) compounds from the low volume high concentration (LVHC) non-condensable gas system, high volume low concentration (HVLC) non-condensable gas system and the foul condensate stripper off gases to 40 tons per 12 consecutive month period. This limit applies to the NCG Thermal Oxidizer and the No. 4 Lime Kiln (Source Codes 6076 and 6063) for incineration of LVHC and SOG gases and the NCG Thermal Oxidizer, the C.E. Combination Boiler, and the Riley Combination Boiler (Source Codes 6076, 1005, and 1006) for the incineration of HVLC gases. This is a PSD Avoidance limit.
3.2.2	3.2.2	No	NA	This condition limits the PM emissions from the Riley and C.E. Combination Boilers (Source Codes 1005 and 1006) to 302.21 tons per consecutive 12-month period. This is a PSD avoidance limit.
3.2.3	3.2.3	Modified	2631-185-0001-V-04-0	This condition requires the shower water source used at the No. 3A Brown Stock Washer System be clean water only. This is a BACT limit. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
3.2.4	3.2.4	Modified	2631-185-0001-V-04-0	This condition allows regulated pulping process condensates listed in Condition 3.3.17 to be recycled to the No. 4 Chemiwasher System (Source Code: G039). The shower water source used at the No. 4 Chemiwasher System final showers must be clean water only. This is a BACT limit. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
3.2.5	3.2.5	No	NA	This condition specifies No. 4 Lime Kiln PSD Avoidance limits to PM, PM_{10}, SO_2, nitrogen oxides (NO_x), CO and VOC.
3.2.6	3.2.6	No	NA	This condition limits NO_x emissions in excess of seventy-five (75) parts per million by volume (ppmv) on a dry basis, corrected to 8% oxygen, and expressed as an annual average from the No. 4 Recovery Furnaces. This is a BACT limit.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.2.7	3.2.7	No	NA	This condition limits sulfuric acid mist (H_2SO_4), vapors, emissions in excess of 0.042 lb/ton BLS. This is a BACT limit.
-	3.2.8	Deleted	2631-185-0001-V-03-1	This condition limited the operating hours for the Package Boiler. This was a PSD avoidance limit.
3.2.8	3.2.9	-	NA	This condition limits the type of fuel fired in Power Boiler No. 3 and limit the heat input of the boiler to 518,400 x 10^6 Btu (16% of rated capacity) per year on a 12-month rolling basis heat input limit. This is a PSD avoidance limit.
3.2.9	-	Added as 3.2.10 Modified	2631-185-0001-V-03-2 2631-185-0001-V-04-0	This condition limits the replacement Tall Oil Reactor production rate to 30,750 tTO/yr per consecutive 12-month period. This limit will take effect following installation of the replacement Tall Oil Reactor. This is a PSD avoidance limit. This condition was modified as part of this renewal to address applicability of this limit to the replacement Tall Oil Reactor and not the current Reactor.
Section 3.3 – Equipment Federal Rule Standards				
3.3.1	3.3.1	No	NA	This condition references applicability of 40 CFR 60 Subpart A.
3.3.2	3.3.2	No	NA	This condition references applicability of 40 CFR 63 Subpart A.
3.3.3	3.3.3	No	NA	This condition references applicability of 40 CFR 60 Subpart A, 40 CFR 63 Subpart for 40 CFR 63 Subpart MM.
3.3.4	3.3.4	No	NA	This condition added to address the general applicability of 40 CFR 63, Subparts A and DDDDD.
-	3.3.5	Deleted	2631-185-0001-V-03-1	This condition required compliance with applicable provisions for 40 CFR 60, Subpart Dc. This condition has been deleted since the Package Boiler has been removed from the permit
3.3.5	3.3.6	No	NA	This condition requires compliance with 40 CFR 60, Subpart Db.
3.3.6	3.3.7	No	NA	This condition limits the combustion of auxiliary fossil fuel in No. 4 Recovery Furnace to only natural gas, be limited to 10% of the annual capacity factor of the furnace per 40 CFR 60, Subpart Db.
3.3.7	3.3.8	No	NA	This condition limits Total Recovered Sulfur (TRS) emissions from No. 4 Recovery Furnace per 40 CFR 60, Subpart BB.
3.3.8	3.3.9	No	NA	This condition limits opacity from No. 4 Recovery Furnace per 40 CFR 60, Subpart BB.
3.3.9	3.3.10	No	NA	This condition limits organic HAP, measured as methanol, of black liquor solids fired in No. 4 Recovery Furnace per in relationship to 40 CFR 63, Subpart MM.
3.3.10	3.3.11	No	NA	This condition specifies applicability of 40 CFR 60, Subpart BB.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.3.11	3.3.12	No	NA	This condition limits TRS emissions from No. 4 Lime Kiln per 40 CFR 60, Subpart BB.
3.3.12	3.3.13	Modified	2631-185-0001-V-04-0	This condition specifies the minimum temperature of the NGC Thermal Oxidizer (Source Code 6076), C.E. Combination Boiler (Source Code 1006), No. 4 Lime Kiln (Source Code 6063) and/or Riley Combination Boiler (Source Code 1005) when combusting TRS per 40 CFR 60, Subpart BB and Georgia Rule gg. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.13	3.3.12	No	NA	This condition requires compliance with applicable provisions for 40 CFR 60 Subpart S.
3.3.14	3.3.13	No	NA	This condition establishes HAP control from each LVHC system as defined in 40 CFR 63 Subpart S.
3.3.15	3.3.14	Modified	2631-185-0001-V-04-0	This condition establishes HAP emissions limits for each knotter and/or screen system according to 40 CFR 63.443(a)(1)(ii) through (v). This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.16	3.3.15	Modified	2631-185-0001-V-04-0	This condition requires that equipment listed in Conditions 3.3.13 and 3.3.14 will be enclosed and vented to a closed-vent system and routed to a control device that meets the HAP destruction requirements of Condition 3.3.21 per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.17	3.3.16	Modified	2631-185-0001-V-04-0	This condition establishes the treatment required for each pulping process condensates specified in Condition 3.3.17 per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.18	3.3.17	Modified	2631-185-0001-V-04-0	This condition establishes that condensates collected from HVLC and LVHC system contains no less that 65% of total HAP mass, measured as methanol, determined as a 15-day rolling average per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.19	3.3.18	Modified	2631-185-0001-V-04-0	This condition requires that condensates collected from Condition 3.3.17 are conveyed to a closed collection system according to specific requirements. Condition 3.3.19.a.requires a closed collection system with specifically designed drain system meeting the specified requirements. Condition 3.3.19.b.i. through 3.3.19.b.ii are the specific requirements for condensate storage tanks (in

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				relationship to 40 CFR 63, Subpart S). This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.20	3.3.19	Modified	2631-185-0001-V-04-0	This condition specifies treatment requirements of condensates collected according to Condition 3.3.18 to reduce or destroy 92% of the HAPs by weight (per 40 CFR 63, Subpart S). This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.21	3.3.22	No	NA	Condition 3.3.21.a through c. requires a minimum temperature of the NGC Thermal Oxidizer (Source Code 6076) when combusting SOG, LVHC and/or HVLC per 40 CFR 63, Subpart S.
3.3.22	3.3.23	Modified	2631-185-0001-V-04-0	This condition requires HAP emissions control for each HVLC component within the system per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.23	3.3.24	Modified	2631-185-0001-V-04-0	This condition requires that the HAP emissions collected as required by Condition 3.3.22 and controlled by either the Riley or C.E. Combination Boilers, must be introduced with the combustion air of these boilers per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.24	3.3.25	Yes	2631-185-0001-V-03-1	This condition specifies applicability of 40 CFR 63, Subpart MM. This condition was modified to add 40 CFR 63.860(d) and 40 CFR 63.863(c) to the rule citation.
3.3.25	3.3.26	No	NA	This condition establishes emissions limits for particulate matter from the No. 4 Recovery Furnace (Source Code 7040), the No. 4 Smelt Tank (Source Code 7045) and the No. 4 Lime Kiln (Source 6063) per 40 CFR 63, Subpart MM. The condition was modified to remove references to removed Recovery Furnaces and Smelt Tanks.
-	3.3.27	Deleted	2631-185-0001-V-04-0	The condition was reserved.
3.3.26	3.3.28	No	NA	This condition addresses applicability of 40 CFR 63, Subpart DDDDD to the facility.
3.3.27	3.3.29	No Modified	NA 2631-185-0001-V-04-0	This condition requires compliance with applicable emission limits and work practice standards of 40 CFR 63, Subpart DDDDD for the Combination Boilers and Power Boiler No. 3. This condition was modified as part of this renewal to reference applicable tables per the recent updates to 40 CFR 63, Subpart DDDDD.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.3.28	3.3.30	No	NA	This condition requires compliance with applicable 40 CFR 63, Subpart DDDDD tables during periods of startup and shutdown for the Combination Boilers and Power Boiler No. 3.
3.3.29	3.3.31	No	NA	This condition requires compliance with periodic tune ups per 40 CFR 63, Subpart DDDDD for the Combination Boilers and Power Boiler No. 3.
-	3.3.32	Deleted	2631-185-0001-V-04-0	The condition was reserved.
3.3.30	3.3.33	No	NA	This condition specifies the boiler subcategory for Power Boiler No. 3 per 40 CFR 63, Subpart DDDDD.
3.3.31	3.3.34	Modified	2631-185-0001-V-04-0	This condition specifies the specific tune up requirements for Power Boiler No. 3 per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers. This condition was also modified to require 5-year tune-up requirements for the Power Boiler No. 3 since it is equipped with a continuous oxygen trim system.
3.3.32	3.3.35	No	NA	This condition defines the Combination Boilers and stack per applicability of 40 CFR 63, Subpart DDDDD.
3.3.33	3.3.36	Modified	2631-185-0001-V-04-0	This condition specifies the specific tune up and energy assessment requirements for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.34	3.3.37	No	NA	This condition limits the fuel usage and type for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
3.3.35	3.3.38	No	NA	This condition limits the moisture content of the biomass or bio-based solid fuel fired in the Combination Boilers per 40 CFR 63, Subpart DDDDD.
3.3.36	3.3.39	No Modified	NA 2631-185-0001-V-04-0	This condition specifies the specific HCl, Mercury, Filterable PM (or TSM) and CO emission limitations for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was updated to reflect the updates to 40 CFR 63, Subpart DDDDD as discussed above.
3.3.37	3.3.41	Modified	2631-185-0001-V-04-0	This condition specifies continuous compliance demonstration per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified to remove reference to the initial compliance demonstrations since they have been completed. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.3.38	3.3.42	Modified	2631-185-0001-V-04-0	This condition specifies the specific work practice standards per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
3.3.39	3.3.43	Modified	2631-185-0001-V-04-0	This condition specifies applicability of 40 CFR 63, Subpart ZZZZ to the facility's applicable engines. This condition was modified to add applicable engines as discussed above.
-	3.3.44	Deleted	2631-185-0001-V-04-0	This condition specified emission limitations for Lime Kiln #4 Auxiliary Drive CI Engine (9065) per 40 CFR 63, Subpart ZZZZ. This condition was deleted as part of the renewal since the Lime Kiln #4 Auxiliary Drive CI Engine (9065) is now only 62 hp so the condition is no longer applicable to this engine. In addition, Water Pump Engine 9064 has been decommissioned.
3.3.40	3.3.45	No	NA	This condition limits emergency generators operating hours per 40 CFR 63, Subpart ZZZZ.
3.3.41	3.3.46	No	NA	The condition requires operation of applicable engines per 40 CFR 63, Subpart ZZZZ good operating and maintenance practices.
3.3.42	-	Added	2631-185-0001-V-04-0	The condition requires operation of applicable engines per 40 CFR 60, Subpart IIII.
3.3.43	-	Added	2631-185-0001-V-04-0	This condition specifies the applicable emission limits per 40 CFR 60 Subpart IIII.
3.3.44	-	Added	2631-185-0001-V-04-0	This condition limits fuel sulfur content per 40 CFR Subpart IIII.
3.3.45	-	Added	2631-185-0001-V-04-0	The condition specifies the emergency testing operating hours limitations per 40 CFR 60 Subpart IIII.
3.3.46	-	Added	2631-185-0001-V-04-0	The condition requires operation of applicable engines per 40 CFR 60, Subpart JJJJ.
3.3.47	-	Added	2631-185-0001-V-04-0	This condition specifies the applicable emission limits per 40 CFR 60 Subpart JJJJ.
3.3.48	3.3.47	No	NA	This condition incorporates affirmative defense to civil penalties allowances that meet certain criteria for 40 CFR 63, Subpart S.
Section 3.4 – Equipment SIP Rule Standards				
3.4.1	3.4.1	No	NA	This condition limits the opacity per Georgia Rule 391-3-1-.02(2)(b) from Lime Kiln No. 4.
3.4.2	3.4.2	No	NA	This condition applies Georgia Rule (e) to the Lime Kiln.
3.4.3	3.4.3	No	NA	This condition applies the Georgia Rule (g) to fuel burned in the Lime Kiln.
3.4.4	3.4.4	No	NA	This condition limits the opacity from the Combination Boilers per Georgia Rule 391-3-1-.02(2)(b).
3.4.5	3.4.5	No	NA	This condition limits the particulate emissions from the Combination Boilers per Georgia Rule 391-3-1-.02(2)(d).

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.4.6	3.4.6	No	NA	This condition applies a fuel sulfur limit for the Combination Boilers per Georgia Rule (g).
-	3.4.7	Deleted	2631-185-0001-V-03-1	This condition limits the particulate emissions from the Package Boiler as specified in Georgia Rule 391-3-1-.02(2)(d). This condition has been deleted since the Package Boiler has been removed from the permit.
-	3.4.8	Deleted	2631-185-0001-V-03-1	This condition limited opacity from the Package Boiler per Georgia Rule (d). This condition has been deleted since the Package Boiler has been removed from the permit.
3.4.7	3.4.9	No	NA	This condition requires the operation of the scrubber at all times when operating the NCG Thermal Oxidizer.
3.4.8	3.4.10	No	NA	This condition requires the operation and maintenance of alternate incineration systems for the TRS collection system gases.
3.4.9	3.4.11	No	NA	This condition limits opacity from the NCG Thermal Oxidizer per Georgia Rule 391-3-1-.02(2)(b).
3.4.10	3.4.12	No	NA	This condition limits opacity from the Lime Slaker to Georgia Rule 391-3-1-.02(2)(b).
3.4.11	3.4.13	No	NA	This condition limits PM from the Lime Slaker per Georgia Rule 391-3-1-.02(2)(e)).
3.4.12	3.4.14	No	NA	This condition limits opacity from Lime Silo to Georgia Rule 391-3-1-.02(2)(b).
3.2.13	3.4.15	No	NA	This condition limits the particulate matter emissions from the Lime Silo-Truck Unloading Station according to Georgia Rule (e).
3.4.14	3.4.16	No	NA	This condition limits opacity the Pin Chip Silo to Georgia Rule 391-3-1-.02(2)(b).
3.4.15	3.4.17	No	NA	This condition limits the Pin Chip Silo particulate matter emissions according to Georgia Rule (e).
3.4.16	3.4.18	No	NA	This condition limits the particulate matter emissions from the No. 4 Recovery Furnace per Georgia Rule (e). This condition was modified to correct a typographical error in the particulate matter calculation equation for process weights above 30 tons per hour.
3.4.17	3.4.19	No	NA	This condition limits opacity from the No. 4 Smelt Dissolving Tank per Georgia Rule 391-3-1-.02(2)(b).
3.4.18	3.4.20	No	NA	This condition limits gas emissions from the No. 4 Smelt Dissolving Tank, which contain Total Reduced Sulfur (TRS) emissions in amounts equal to or exceeding 0.0168 pounds per ton of black liquor solids (dry weight). This is required by Georgia Rule (gg).
3.4.19	3.4.21	No	NA	This condition limits the particulate matter emissions from the No. Smelt Dissolving Tank according to Georgia Rule (e).
3.4.20	3.4.22	No	NA	This condition limits Power Boiler No. 3 opacity per Georgia Rule (d).

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
3.4.21	3.4.23	No	NA	Limits particulate matter emissions from Power Boiler No. 3 per Georgia Rule (d).
3.4.22	3.4.24	No	NA	Limits nitrogen oxides emissions from Power Boiler No. 3 per Georgia Rule (d).
Section 3.5 - Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit				
-	3.5.1	Deleted	2631-185-0001-V-03-1	This condition authorized the facility to operate the Package Boiler only when one of the other boilers is down. This condition has been deleted since the Package Boiler has been removed from the permit.
3.5.1	3.5.2	No	NA	This condition requires the operation of the Pin Chip Silo Baghouse (Source Code: C020) during all periods of chip transfer into the silo.
3.5.2	3.5.3	No	NA	This condition specifies the No. 4 Smelt Dissolving Tank (Source Code 7045) vent gases exhaust limitations.
3.5.3	3.5.4	No	NA	This condition specifies the types of fuels that may be fired in the Combination Boilers.

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.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 4.1.3.ll. was added to require that the facility conduct periodic performance testing of the No. 4 Recovery Furnace (Source Code 7040) using Method 308 as well as the methods in Permit Conditions 4.1.3.s through 4.1.3.w to demonstrate compliance with former Permit Condition 3.3.10 beginning October 11, 2019 per 40 CFR 63 Subpart MM updates. As part of this Title V Renewal, reference to the initial compliance has been deleted as it has passed. The condition was also modified to update the permit condition number referenced.

As part of this renewal, the Division has added Permit Condition 4.1.5 which may require the facility to conduct performance testing to demonstrate compliance if there is a productions rates increase above the levels at which performance testing was previously conducted.

B. Specific Testing Requirements

Individual equipment testing is as summarized in the following table. Further detail is provided in the Summary of Permit Conditions in Section 4.0 Table below.

Source Code	Equipment	Pollutants	Testing Frequency
7040	No. 4 Recovery Furnace	Particulate Matter	PM – annual Methanol – once/5 years
6063	No. 4 Lime Kiln	Particulate Matter	PM - annual
6076	NCG Thermal Oxidizer	Sulfur Dioxide (when all HVLC & LVHC gases are being combusted in this source, to establish/verify a conservative emission factor.) Methanol	SO_2 – annual Methanol – once/5 years
1005 & 1006	Riley & C.E. Combination Boilers	Particulate Matter, Sulfur Dioxide (when burning only HVLC gases and bark, to establish/verify a conservative emission factor.)	PM – annual, SO_2 - annual

Source Code	Equipment	Pollutants	Testing Frequency
1005 & 1006[*,+]	Riley & C.E. Combination Boilers	Filterable PM or TSM CO HCl Mercury	Filterable PM or TSM - annual CO, -annual HCl, -annual Mercury – annual

[*]Note 1: 40 CFR 63 Subpart DDDDD Filterable PM performance testing will satisfy other PM testing requirements if the other PM testing is at a similar or less frequent sampling schedule.

[+]Note 2: The Permittee may elect to demonstrate compliance with an applicable emission limit for mercury, HCl, and/or TSM through fuel analysis rather than a performance stack test as specified above. If this option is elected for one or more pollutants, the Permittee must conduct fuel analyses according to Permit Conditions 4.2.16 and 4.2.17.

Permit Condition 4.2.1 specifies performance tests for the applicable equipment and pollutants. As part of this permit renewal the facility has requested that this permit condition be modified to add methanol as a pollutant requiring performance testing to the No. 4 Recovery Furnace. U.S. EPA Method 25a performance testing for methanol is required to demonstrate compliance with Condition 3.3.10 and 40 CFR Part 63, Subpart MM. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Permit Condition 4.2.2 specifies the performance tests frequency for applicable equipment and pollutants. As part of this permit renewal the facility has requested that this permit condition be modified to (1) add "Methanol – once/5 years" to the No. 4 Recovery Furnace, (2) revise PM stack testing frequencies for the No. 4 Lime Kiln and No. 4 Recovery Furnace to once every five years to align with 40 CFR Part 63, Subpart MM performance testing requirements, (3) revise PM/Filterable PM stack testing frequencies for the Riley & CE Combination Boilers to consolidate and align with 40 CFR Part 63, Subpart DDDDD testing frequencies, and (4) clarify frequencies of stack testing associated with carbon monoxide (CO). The Division will not revise the PM testing frequencies for the No. 4 Lime Kiln, the Riley or CE Combination boilers as requested since each are subject to consecutive 12-month period PSD avoidance limits with which they must demonstrate compliance. The facility must complete applicable testing to meet all applicable limits and associated limit schedules (i.e. lbs/ yr, etc.). The Division will revise the CO performance testing for the Riley and CE Combination boilers as requested. The Division will allow, however, the reduction of the PM stack testing frequency for the No. 4 Recovery Furnace to align with the 40 CFR 63, Subpart MM performance testing requirements. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Former Permit Condition 4.2.3 specified testing for 40 CFR 63, Subpart MM as included in Permit Condition 4.1.3. This condition was deleted per Title V Permit Amendment Number 2361-185-0001-V-03-1 as it is not applicable to this facility.

Former Permit Condition 4.2.4 specified continuous monitoring per 40 CFR 63, Subpart MM. This condition was deleted per Title V Permit Amendment Number 2361-185-0001-V-03-1, because it is not applicable to this facility.

Former Permit Condition 4.2.5 specifies the testing requirements for black liquor firing rates per for 40 CFR 63, Subpart MM. This condition was modified as part of this renewal to add establishment of operating ranges per for 40 CFR 63, Subpart MM.

Former Permit Condition 4.2.6 address performance testing of pulping process condensates per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Former Permit Condition 4.2.9 specifies pollutant testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers. As part of the Title V Renewal this condition will be modified to remove reference to the initial compliance demonstrations since they have been completed.

Former Permit Condition 4.2.13 specifies performance testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers. As part of this permit renewal the condition will be modified to remove entire the initial compliance demonstration requirements since they have been completed.

Former Permit Condition 4.2.18 specifies fuel analysis performance testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Former Permit Condition 4.2.19 specifies fuel analysis to demonstrate compliance with applicable pollutant emission limits. per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified as part of this renewal to address updates to 40 CFR 63, Subpart DDDDD.

Former Permit Condition 4.2.21, added per Title V Permit Amendment Number 2361-185-0001-V-03-1, to specifies the frequency of performance test for sources for sources subject to limitations under 40 CFR 63 Subpart MM per 40 CFR 63 Subpart MM updates. As part of the Title V Renewal this condition will be modified to remove reference to the initial compliance demonstrations since they have been completed.

Summary of Permit Conditions in Section 4.0 of Permit Number 2631-185-0001-V-04-0

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
4.2.1	4.2.1	Modified	2631-185-0001-V-04-0	This condition specifies performance tests for the applicable equipment and pollutants. As part of this permit renewal the facility has requested that this permit condition be modified to add methanol as a pollutant requiring performance testing to the No. 4 Recovery Furnace. U.S. EPA Method 25a performance testing for methanol is required to demonstrate compliance with Condition 3.3.9 and 40 CFR Part 63, Subpart MM. The referenced permit condition numbers were also updated.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
4.2.2	4.2.2	Modified	2631-185-0001-V-04-0	This condition specifies the performance tests frequency for applicable equipment and pollutants. As part of this permit renewal this permit condition be modified to (1) add "Methanol – once/5 years" to the No. 4 Recovery Furnace, (2) revise PM stack testing frequencies for the No. 4 Recovery Furnace to once every five years to align with 40 CFR Part 63, Subpart MM performance testing requirements and (3) will revise the CO performance testing for the Riley and CE Combination boilers as requested. The referenced permit condition numbers were also updated.
-	4.2.3	Deleted	2631-185-0001-V-04-0	This condition specified testing for 40 CFR 63, Subpart MM as included in Permit Condition 4.1.3. This condition was deleted as part of this renewal since it is no longer applicable.
-	4.2.4	Deleted	2631-185-0001-V-04-0	This condition specified continuous monitoring per for 40 CFR 63, Subpart MM. This condition was deleted as part of this renewal since it is no longer applicable.
4.2.3	4.2.5	Modified	2631-185-0001-V-04-0	Specifies the testing requirements for black liquor firing rates per for 40 CFR 63, Subpart MM. This condition was modified as part of this renewal to add establishment of operating ranges per for 40 CFR 63, Subpart MM.
4.2.4	4.2.6	Modified	2631-185-0001-V-04-0	This condition requires performance test for the pulping process condensates from the equipment systems subject to 40 CFR 63 Subpart S. The referenced permit condition numbers were updated as part of this permit renewal.
4.2.5	4.2.7	No	NA	This condition specifies requirements for repeat performance testing per 40 CFR 63, Subpart S.
4.2.6	4.2.8	No	NA	This condition specifies requirements for performance testing reporting per 40 CFR 63, Subpart S.
4.2.7	4.2.9	Modified	2631-185-0001-V-04-0	This specifies pollutant testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers. As part of this renewal, the facility requested that this condition be modified to remove initial compliance demonstrations which should be deleted as they are complete. The Division will make the proposed changes.
4.2.8	4.2.10	No	NA	This condition specifies performance testing notification per 40 CFR 63, Subpart DDDDD for the Combination Boilers.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
4.2.9	4.2.11	No	NA	This condition requires a site-specific test plan per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.10	4.2.12	No	NA	This condition requires a site-specific fuel monitoring plan per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.11	4.2.13	Modified	2631-185-0001-V-04-0	This condition specified initial and subsequent performance testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers. As part of this renewal, the facility requested that this condition be modified to remove initial compliance demonstrations which should be deleted as they are complete. The Division will make the requested changes.
4.2.12	4,2.14	No	NA	This condition specifies performance testing for chloride input testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.13	4.2.15	No	NA	This condition specifies the operating limits testing per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.14	4.2.16	No	NA	This condition specifies the initial and subsequent testing to establish the boiler-specific minimum oxygen level set points for the oxygen trim system per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.15	4.2.14	No	NA	The condition requires pollutant testing for one boiler operation per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.16	4.2.18	Modified	2631-185-0001-V-04-0	This condition specifies fuel analysis per 40 CFR 63, Subpart DDDDD for the Combination Boilers. The referenced permit condition numbers were also updated.
4.2.17	4.2.19	Modified	2631-185-0001-V-04-0	This condition specifies fuel analysis to demonstrate compliance with applicable pollutant emission limits. per 40 CFR 63, Subpart DDDDD for the Combination Boilers. This condition was modified as part of this renewal to address updates to 40 CFR 63, Subpart DDDDD.
4.2.18	4.2.20	No	NA	This condition specifies biomass fuel moisture content analysis schedule per 40 CFR 63, Subpart DDDDD for the Combination Boilers.
4.2.19	-	Added as Condition 4.2.21 Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition was added to specify frequency of performance test for sources for sources subject to limitations under 40 CFR 63 Subpart MM per 40 CFR 63 Subpart MM updates. This condition is being

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				modified as part of this renewal to remove initial compliance demonstrations which should be deleted as they are complete.

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 monitoring requirements for individual equipment is as specified in the permit conditions table below.

C. Compliance Assurance Monitoring (CAM)

The NCG Thermal Oxidizer vents to a caustic scrubber. The control device is used to achieve compliance with an applicable emission limit or standard. Potential SO_2 emissions, the controlled pollutant, are above the applicable major source thresholds. Therefore 40 CFR 64 is applicable to the SO_2 emissions from NCG Thermal Oxidizer as specified in in the permit conditions table below.

The Combination Boilers vent to a common venturi scrubber. The control device will be used to achieve compliance with an applicable emission limit or standard. Potential PM and SO_2 emissions, the controlled pollutants, are above the applicable major source thresholds. Per 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Clean Air Act are exempted from this regulation. Particulate matter emissions from the Combination Boilers are limited by 40 CFR 63, Subpart DDDDD. This regulation was promulgated under Section 112 of the Clean Air Act after November 15, 1990. Therefore, PM emissions from the Combination Boilers are exempted from requirements of 40 CFR 64. However, given pending litigation concerning 40 CFR 63, Subpart DDDDD, the PM CAM requirements were included in previous Title V Renewal. EPA published the most recent final 40 CFR 63, Subpart DDDDD rule on July 21, 2022, and compliance with the final rule goes into effect on October 6, 2025. However, there are still some ongoing petitions for further revisions to the rule. It should be noted that as per 40 CFR 64, the source owner is exempt from meeting 40 CFR 64 requirements in monitoring for compliance with the MACT rule emissions limitations only; monitoring for all other requirements remain in effect [40 CFR 64.2(b)(i)]. The source owner is not exempt from 40 CFR 64 simply because the facility is subject to a MACT rule if the existing requirements remain in place. As indicated above, the Combination Boilers are subject to a PSD avoidance limit for PM emissions. Therefore, it is proposed that CAM will continue to apply. The facility agrees that CAM will continue to apply and will continue to demonstrate compliance with the existing CAM requirements for the Riley & C.E. Combination Boilers.

The SO_2 emissions from the Combination Boilers are regulated under 40 CFR 64, and the requirements of this regulation for the Combination Boilers' SO_2 emissions incorporated in the facility's existing Title V permit. CAM requirements for applicable pollutant emissions from Combination Boilers are specified in in the permit conditions table below.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 5.2.1 requires Continuous Emissions Monitoring Systems (CEMS) for the No. 4 Lime Kiln and No. 4 Recovery Furnace for TRS and Opacity. Conditions 5.2.1.d and 5.2.1.e were added to specify updated COMs monitoring requirements per the amended 40 CFR 63 Subpart MM.

Permit Condition 5.2.7 specifies the monitoring requirements for each enclosure and closed vent system per 40 CFR 63, Subpart S. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Permit Condition 5.2.8 requires inspection of the pulping process condensate closed collection per 40 CFR 63, Subpart S. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Permit Condition 5.2.16 specifies tune-up requirements per 40 CFR 63, Subpart DDDDD. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.

Permit Condition 5.2.28 specifies fuel analysis requirements per 40 CFR 63, Subpart DDDDD. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers add address updates to 40 CFR 63, Subpart DDDDD as discussed above in this document.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 5.2.31 was added to require the facility to develop site-specific CMS data quality assurance procedures for applicable CMS on or before October 11, 2019 per 40 CFR 63 Subpart MM updates.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 5.2.32 was added to specify BACT requirements discussed above in this document for the paper machine system.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 5.2.33 was added to specify updated monitoring requirements per amended 40 CFR 63 Subpart MM for CMS data quality assurance procedures and monitoring data, respectively.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 5.2.34 was added to require proper operation of the electrostatic precipitators automatic voltage control per amended 40 CFR 63 Subpart MM.

Per Title V Permit Amendment Number 2361-185-0001-V-03-2, Permit Condition 5.2.35 was added to require the facility to monitor the production rate of the proposed Tall Oil Reactor to demonstrate compliance with the PSD avoidance limit discussed above. This condition will take effect following the installation of the replacement Tall Oil Reactor. As part of this renewal, this condition will be modified to ensure that the monitoring requirements are applicable to the replacement reactor and not the current reactor.

Permit Condition 5.2.36 was added as part of this renewal to add the non-resettable continuous monitoring system requirements specified in 40 CFR 60 Subpart IIII for applicable engines.

Permit Condition 5.2.37 was added as part of this renewal to add operation and maintenance requirements specified in 40 CFR 60 Subpart IIII for applicable engines.

Permit Condition 5.2.38 was added as part of this renewal to add the non-resettable continuous monitoring system requirements specified in 40 CFR 60 Subpart JJJJ for applicable engines.

The following table summarizes applicable monitoring included in this renewal.

Summary of Permit Conditions in Section 5.0 of Permit Number 2631-185-0001-V-04-0

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
5.2.1	5.2.1	Modified	2631-185-0001-V-03-1	This condition requires Continuous Emissions Monitoring Systems (CEMS) for the No. 4 Lime Kiln and No. 4 Recovery Furnace for TRS and Opacity. Conditions 5.2.1.d and 5.2.1.e were added to specify updated COMs monitoring requirements per the amended 40 CFR 63 Subpart MM.
5.2.2	5.2.2	No	NA	This condition requires continuous monitoring and recording of the firebox temperature in the ductwork immediately downstream before any significant heat exchangers in the NCG Thermal Oxidizer. It also requires continuous monitoring and recording of process waste water feed rate and temperature, steam feed rate for the Condensate Stripper. 3-hour averaging was changed to 3-hour block averaging. The condition requires continuous monitoring of the fuel usage of Power Boiler No. 3.
5.2.3.a	5.2.3.a	No	NA	This condition requires monitoring devices for the following process parameters for the C.E. and Riley Combination Boilers: Pressure drop, Scrubbant flow rate and pH from Venturi Scrubber and periods during combustion of HVLC. 3-hour averaging was changed to 3-hour block averaging.
5.2.3.b	5.2.3.b	No	NA	This condition requires monitoring devices for the following process parameters for the secondary voltage for each electrostatic precipitator for the No. 4 Lime Kiln (ESP Source Code C009). 3-hour averaging was changed to 3-hour block averaging.
5.2.3.c	5.2.3.c	No	NA	This condition requires monitoring devices for the No. 4 Recovery Furnace: secondary voltage for the electrostatic precipitator black Liquor firing rate.
5.2.3.d	5.2.3.d	No	No6	This condition requires monitoring devices for the following process

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				parameters for the NCG Thermal Oxidizer and Caustic Scrubber (Source Codes 6076 and C010): pH of the scrubbant entering, flow rate of the scrubbant entering, and the head line pressure.
5.2.3.e	5.2.3.e	No	NA	This condition requires monitoring devices for the following process parameters for the Lime Slaker Dust Suppression System (Source Code C007): water flow to nozzles and water pressure to nozzles.
5.2.3.f	5.2.3.f	No	NA	This condition requires monitoring devices for the following process parameters for the Lime Silo – Truck Unloading Station Scrubber (Source Code C008) recirculation flow and inductor inlet duct draft.
5.2.3.g	5.2.3.g	No	NA	This condition requires monitoring devices for the following process parameter for the Pin Chip Silo (Source Code 2012): pressure drop across the baghouse for the Pin Chip Silo Baghouse (Source Code C020).
5.2.3.h	5.2.3.h	No	NA	Requires monitoring of NCG thermal Oxidizer (Source Code 6076) bypass when HVLC or LVHC in being controlled. Permit Condition 5.2.3 was also modified to move 5.2.3 e. iv to 5.2.3.i
5.2.4	5.2.4	No	NA	This condition requires all monitoring systems to continuously operate except during calibration, zero and span adjustments or during maintenance or repair.
5.2.5	5.2.5	No	NA	This condition requires spare parts inventory for each TRS monitoring system installed.
5.2.6	5.2.6	No	NA	This condition requires once per quarter that fuel oil samples from the lime kiln day tank be analyzed for sulfur content.
5.2.7	5.2.7	Modified	2631-185-0001-V-04-0	This condition requires monitoring of the closed vent system to comply with 40 CFR 63, Subpart S. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
5.2.8	5.2.8	Modified	2631-185-0001-V-04-0	This condition requires visual inspection of each pulping process condensate closed collection system. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
5.2.9	5.2.9	No	NA	This condition requires operating parameters for the foul-condensate

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				steam stripper (Source Code ID No. 4336)
5.2.10	5.2.10	No	NA	This condition requires operational and maintenance checks for the Lime Dust Suppression System (Source Code C007) once per year.
5.2.11	5.2.11	No	NA	This condition requires inspection of the educator nozzle of the Lime Silo – Truck Unloading Station Scrubber (Source Code C008) once per year.
5.2.12	5.2.12	No	NA	This condition requires monitoring of daily paper production.
5.2.13	5.2.13	No	NA	Identifies CAM pollutant specific Source Codes as NCG Thermal Oxidizer, C.E. and Riley Combination Boilers.
5.2.14	5.2.14	No	NA	CAM performance criteria for the PM emissions from Riley and CE Combination Boilers.
5.2.15	5.2.15	No	NA	CAM performance criteria for the SO_2 emissions from Riley, CE Combination Boilers and NCG Thermal Oxidizer.
5.2.16	5.2.16	Modified	2631-185-0001-V-04-0	This condition was added to address the requirements of boiler tune-ups per 40 CFR 63, Subpart DDDDD for Power Boiler and the Combination Boilers. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers.
5.2.17	5.2.17	No	NA	This condition was added to specify the requirements of boiler tune-ups per 40 CFR 63, Subpart DDDDD for the applicable boilers.
5.2.18	5.2.19	No	NA	This condition specifies continuous pollutant or parameter monitoring systems for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.19	5.2.19	No	NA	This condition specifies continuous scrubber parameter monitoring systems for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.20	5.2.20	No	NA	This condition specifies oxygen trim system operation for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.21	5.2.21	No	NA	This condition requires steam flow for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.22	5.5.22	No	NA	The condition requires a startup and shutdown plan for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.23	5.2.23	No	NA	This condition requires a site-specific monitoring plan for the Combination Boilers per 40 CFR 63, Subpart DDDDD.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
5.2.24	5.2.24	No	NA	This condition specifies what must be addressed by a site-specific monitoring plan for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.25	5.2.25	No	NA	This condition requires periodic performance evaluations for the monitoring systems for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.26	5.2.26	No	NA	The condition requires data collection per the monitoring plan for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.27	5.2.27	No	NA	This condition requires fuel usage monitoring for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
5.2.28	5.2.28	Modified	2631-185-0001-V-04-0	This condition specifies the fuel analysis for the Combination Boilers per 40 CFR 63, Subpart DDDDD. As part of this permit renewal, this condition was modified as part of this renewal to correctly reference the updated permit condition numbers add address updates to 40 CFR 63, Subpart DDDDD as discussed above in this document.
5.2.29	5.2.29	Modified	2631-185-0001-V-04-0	This condition requires operating hours monitoring per 40 CFR 63, Subpart ZZZZ for applicable engines. This condition was modified as part of this renewal to add and remove engines as discussed above.
5.2.30	5.2.30	Modified	2631-185-0001-V-04-0	This condition specifies operating and maintenance per 40 CFR 63, Subpart ZZZZ for applicable engines. This condition was modified as part of this renewal to add and remove engines as discussed above.
5.2.31	-	Added as 5.2.31 Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition was added to require the facility to develop site-specific CMS data quality assurance procedures for applicable CMS on or before October 11, 2019 per 40 CFR 63 Subpart MM updates. This condition was modified as part of this renewal to remove reference to the initial compliance date since it has passed.
5.2.32	-	Added as 5.2.32	2631-185-0001-V-03-1	This condition was added to specify BACT requirements discussed above in this document for the paper machine system.
5.2.33	-	Added as 5.2.33	2631-185-0001-V-03-1	This condition was added to specify updated monitoring requirements per amended 40 CFR 63 Subpart MM for CMS data quality assurance

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				procedures and monitoring data, respectively.
5.2.34	-	Added as 5.2.34	2631-185-0001-V-03-1	This condition was added to require proper operation of the electrostatic precipitators automatic voltage control per amended 40 CFR 63 Subpart MM.
5.2.35	-	Added as 5.2.35 Modified	2631-185-0001-V-03-2 2631-185-0001-V-04-0	This condition was added to require the facility to monitor the production rate of the replacement Tall Oil Reactor to demonstrate compliance with the applicable PSD avoidance limit. This condition will take effect following the installation of the replacement Tall Oil Reactor. This condition was modified to address facility concerns related to the proposed replacement reactor monitoring which would not be applicable to the current reactor.
5.2.36	-	Added as 5.2.36	2631-185-0001-V-04-0	This condition was added as part of this renewal to add the non-resettable continuous monitoring system requirements specified in 40 CFR 60 Subpart IIII for applicable engines.
5.2.37	-	Added as 5.2.37	2631-185-0001-V-04-0	This condition was added as part of this renewal to add operation and maintenance requirements specified in 40 CFR 60 Subpart IIII for applicable engines.
5.2.38	-	Added as 5.2.38	2631-185-0001-V-04-0	This condition was added as part of this renewal to add the non-resettable continuous monitoring system requirements specified in 40 CFR 60 Subpart JJJJ for applicable engines.

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 basis.

Former Permit Condition 6.1.7b.vi specifies monitoring exceedances for the No. 4 Lime Kiln and the No. 4 Recovery Furnace per 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 40 CFR 63 Subpart MM revisions,'. As part of this renewal, the facility has requested that this condition be deleted as the compliance date has passed. The Division will make the proposed changes.

Permit Condition 6.1.7.b.vii specifies the exceedances for paper production. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to update the facility's paper production to 662,300 ODT/yr.

Former Permit Condition 6.1.7.b.viii specified the operating hours exceedances for the Package Boiler. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition has been deleted since the Package Boiler has been removed from the permit.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Former Permit Conditions 6.1.7.b.xii and 6.1.7.b.xiii were added to define the excess emissions to be reported per Condition 6.2.48 per the 40 CFR 63 Subpart MM updates for the No. 4 Lime Kiln and No. 4 Recovery Furnace, respectively. As part of this renewal, the facility has requested that these conditions be modified to remove references to the initial compliance date since it has passed. The Division will make the requested changes.

As part of this permit renewal, Permit Condition 6.1.7.b.xiii was added to define excess emissions related to fuel oil sulfur content of fuel per 40 CFR 60, Subpart IIII.

Permit Condition 6.1.7.c.xiii specifies excursions for the pressure drop for the Pin Chip Silo Baghouse. As part of this permit renewal the facility requested that the pressure drop operating range for the Pin Chip Silo Baghouse be updated to 0 to 12 inches of water (H_2O) from 0.5 to 12 inches. The request was made because of the most recent bag change at the Valdosta Mill and a review of the differential pressure and no visible emissions at the baghouse during transfers. However, no data was provided to the Division to support the proposed modification. The facility has since submitted Method 9 and pressure reading documentation to support this request. Therefore, the condition will be updated as requested.

Former Permit Condition 6.1.7.d.iv specified opacity reporting for the No. 4 Lime Kiln per 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 40 CFR 63 Subpart MM revisions,'. As part of this renewal, the facility has requested that this condition be deleted as the compliance date has passed. The Division will make the proposed changes.

Permit Condition 6.1.7.d.v specifies opacity reporting for the No. 4 Recovery Furnace per 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 40 CFR 63 Subpart MM revisions,'. This rule citation for this condition was also modified to 40 CFR 63.864(k)(1)(i). As part of this renewal, the facility has requested that this condition be deleted as the compliance date has passed. The Division will make the proposed changes.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Conditions 6.1.7.d.viii and 6.1.7.d.vix were added to specify the opacity reporting requirements for the No. 4 Lime Kiln and the No. 4 Recovery Furnace, respectively, per 40 CFR 63 Subpart MM updates. As part of this renewal, the facility has requested that these conditions be modified to remove references to the initial compliance date since it has passed. The Division will make the requested changes.

Former Permit Condition 6.1.8 required reporting of any SSM event not consistent with the SSM plan per 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition has been deleted per the 40 CFR 63 Subpart MM updates.

Former Permit Condition 6.1.9 specified periodic startup, shutdown, and malfunction reporting related to 40 CFR 63 Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition has been deleted per the 40 CFR 63 Subpart MM updates.

Per Title V Permit Amendment Number 2361-185-0001-V-03-2, Former Permit Condition 6.1.10 was added to define the exceedance of the production rate of the replacement Tall Oil Reactor. The requirements of this condition will take effect following installation of the replacement Tall Oil Reactor and be included in Permit Condition 6.1.7, and Permit Condition 6.1.10 was deleted as part of this renewal.

Permit Condition 6.1.7, which contains general record keeping and reporting requirements, is summarized in the table below.

Summary of Permit Condition 6.1.7 in Section 6.0 of Permit Number 2631-185-0001-V-04-0

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.1.7.a.i	6.1.7.a.1	No	NA	This condition specifies the excess TRS emissions for the No. 4 Lime Kiln and No. 4 Recovery Furnace.
6.1.7.a.ii	6.1.7.a.ii	No	NA	This condition specifies the excess TRS/NCG emissions for the NCG Thermal Oxidizer.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.1.7.a.iii	6.1.7.a.iii	No	NA	This condition specifies the average operating temperature requirements for the NCG Thermal Oxidizer.
6.1.7.a.iv.	6.1.7.a.iv	No	NA	This condition specifies the average ratio of process wastewater feed rate-to-steam feed rate for the steam stripper.
6.1.7.a.v.	6.1.7.a.v	No	NA	This condition specifies the reporting of any time the caustic scrubber is not operating when operating the NCG Thermal Oxidizer.
6.1.2.a.vi	6.1.7.a.vi	No	NA	This condition specifies reporting of excess emissions for the Condensate Stripper per 40 CFR 63, Subpart S.
6.1.2.a.vii	6.1.2.a.vii	No	NA	This condition specifies reporting of excess emissions for the HVLC and LVHC systems per 40 CFR 63, Subpart S.
6.1.7.b.i	6.1.7.b.i	No	NA	This condition specifies the exceedances for the 12 month rolling SO_2 emissions from the combustion of LVHC and HVLC gases.
6.1.7.b.ii	6.1.7.b.ii	No	NA	This condition specifies the emissions exceedances for the No. 4 Lime Kiln.
6.1.7.b.iii	6.1.7.b.iii	No	NA	This condition specifies the exceedances for the percentage of collected process condensates.
6.1.7.b.iv	6.1.7.b.iv	No	NA	This condition specifies the exceedances for total HAP mass collected.
6.1.7.b.v	6.1.7.b.v	No	NA	This condition specifies exceedances for total HAP emissions from each uncontrolled Kraft pulp mill LVHC system, SOG System or HVLC system.
-	6.1.7.b.vi	Modified Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specified monitoring exceedances for the No. 4 Lime Kiln and the No. 4 Recovery Furnace per 40 CFR 63, Subpart MM. This condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 40 CFR 63 Subpart MM revisions'. As part of this renewal, this condition was deleted as the compliance date has passed.
6.1.7.b.vi	6.1.7.b.vii	Modified	2631-185-0001-V-03-1	This condition specifies the exceedances for paper production. This condition was modified to update the facility's paper production to 662,300 ODT/yr.
-	6.1.7.b.viii	Deleted	2631-185-0001-V-03-1	This condition specified the operating hours exceedances for the Package Boiler. This condition has been deleted since the Package Boiler has been removed from the permit.
6.1.7.b.vii	6.1.7.b.ix	No	NA	This condition specifies the natural gas usage exceedances for the No. 4 Recovery Furnace.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.1.7.b.viii	6.1.7.b.x	No	NA	This condition specifies electric output supply exceedances.
6.1.7.b.ix	6.1.7.b.xi	No	NA	This condition specifies the No. 3 Power Boiler total heat input exceedances.
6.1.7.b.x	-	Added as Condition 6.1.7.xii	2631-185-0001-V-03-1	This condition was added to define the excess emissions to be reported per the 40 CFR 63 Subpart MM updates for the No. 4 Lime Kiln and No. 4 Recovery Furnace, respectively. As part of this renewal, this condition was modified to remove reference to the initial compliance date since it has passed.
6.1.7.b.xi	-	Added as Condition 6.1.7.xiii	2631-185-0001-V-03-1	This condition was added to define the excess emissions to be reported per the 40 CFR 63 Subpart MM updates for the No. 4 Lime Kiln and No. 4 Recovery Furnace, respectively. As part of this renewal, this condition was modified to remove reference to the initial compliance date since it has passed.
6.1.7.b.xii	-	Added as Condition 6.1.10.b.i Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition defines the exceedance of the production rate of the replacement Tall Oil Reactor. This condition will take effect following installation of the replacement Tall Oil Reactor. This condition was modified to address facility concerns related to the proposed replacement reactor monitoring which would not be applicable to the current reactor.
6.1.7.b.xiii	-	Added as Condition 6.1.7.b.xiii	2631-185-0001-V-04-0	This condition was added as part of this renewal to define fuel oil sulfur content per 40 CFR 60, Subpart IIII.
6.1.7.c.i	6.1.7.c.i	No	NA	This condition specifies pressure drop excursions for the Combination Boilers venturi scrubber.
6.1.7.c.ii	6.1.7.c.ii	No	NA	This condition specifies excursion for the scrubbant recirculation flow rate for the venturi scrubber for the Combination Boilers.
6.1.7.c.iii	6.1.7.c.iii	No	NA	This condition specifies excursion for the pH of the scrubbant for the venturi scrubber for the Combination Boilers.
6.1.7.c.iv	6.1.7.c.vi	No	NA	This condition specifies excursions for the pH for the scrubbant for the NCG Thermal Oxidizer Caustic Scrubber.
6.1.7.c.v	6.1.7.c.v	No	NA	This condition specifies excursions for the scrubbant flow rate of the NCG Thermal Oxidizer Caustic Scrubber. This flow rate reflects data from the most recent performance testing.
6.1.7.c.vi	6.1.7.c.vi	No	NA	This condition specifies the excursions for the scrubbant header line pressure for the NCG Thermal Oxidizer Caustic Scrubber.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.1.7.c.vii	6.1.7.c.vii	No	NA	This condition specifies an excursion for the secondary power for the precipitator serving the No. 4 Lime Kiln.
6.1.7.c.viii	6.1.7.c.viii	No	NA	This condition specifies the excursions for water flow to the Lime Dust Suppression System.
6.1.7.c.ix	6.1.7.c.ix	No	NA	This condition specifies the excursions for water pressure to the Lime Dust Suppression System.
6.1.7.c.x	6.1.7.c.x	No	NA	This condition specifies the excursion for lime silo-truck unloading scrubber operation.
6.1.7.c.xi	6.1.7.c.xi	No	NA	This condition specifies the excursion for the negative draft for Lime Silo-Truck Unloading.
6.1.7.c.xii	6.1.7.c.xii	No	NA	This condition specifies excursions for Pin Chip Silo Baghouse operation.
6.1.7.c.xiii	6.1.7.c.xiii	No	NA	This condition specifies excursions for the pressure drop for the Pin Chip Silo Baghouse. As part of this permit renewal the facility requested that the pressure drop operating range for the Pin Chip Silo Baghouse be updated to 0 to 12 inches of water (H2O) from 0.5 to 12 inches. The request was made because of the most recent bag change at the Valdosta Mill and a review of the differential pressure and no visible emissions at the baghouse during transfers. However, no data was provided to the Division to support the proposed modification. The facility has since submitted Method 9 and pressure reading documentation to support this request. Therefore, the condition will be updated as requested.
6.1.7.c.xiv	6.1.7.c.xiv	No	NA	This condition specifies Recovery Furnace No. 4 ESP secondary power limits while firing black liquor.
6.1.7.d.i	6.1.7.d.i	No	NA	This condition requires reporting of TRS gases venting from a major NCG ducting as specified in the condition.
6.1.7.d.ii	6.1.7.d.ii	No	NA	This condition specifies reporting of use of back-up incineration for LVHC gases as specified in the condition.
6.1.7.d.iii	6.1.7.d.iii	No	NA	This condition specifies reporting of hours of Combination Boilers operation as the primary control device for HVLC gas as specified in the condition.
-	6.1.7.d.iv	Modified Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specifies opacity reporting for the No.4 Lime Kiln per 40 CFR 63, Subpart MM. This condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 40 CFR 63 Subpart MM revisions'. As part of this renewal,

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				this condition will be deleted as the compliance date has passed.
-	6.1.7.d.v	Modified Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specifies opacity reporting for the No. 4 Recovery Furnace per 40 CFR 63, Subpart MM. This condition was modified to add 'Until October 11, 2019, the compliance date for the October 11, 2017 4 CFR 63 Subpart MM revisions,'. This rule citation for this condition was also modified to 40 CFR 63.864(k)(1)(i). As part of this renewal, this condition will be deleted as the compliance date has passed.
6.1.7.d.iv	6.1.7.d.vi	No	NA	This condition requires reporting of No. 4 Smelting Tank operating open to the bypass stack as specified in the condition.
6.1.7.d.v	6.1.7.d.vii	No	NA	This condition specifies reporting of the total electrical energy sold to the electrical utility grid as specified in the condition.
6.1.7.d.vi	-	Added as Permit Condition 6.1.7.d.viii	2631-185-0001-V-03-1	This Condition was added to specify the opacity reporting requirements for the No. 4 Lime Kiln, per 40 CFR 63 Subpart MM updates. As part of this renewal this condition will be modified to remove reference to the initial compliance date since it has passed.
6.1.7.d.vii	-	Added as Permit Condition 6.1.7.d.ix	2631-185-0001-V-03-1	This condition was added to specify the opacity reporting requirements for the No. 4 Recovery Furnace, per 40 CFR 63 Subpart MM updates. As part of this renewal, this condition will be modified to remove reference to the initial compliance date since it has passed.
-	6.1.8	Deleted	2631-185-0001-V-03-1	This condition requires reporting of any SSM event not consistent with the SSM plan per 40 CFR 63, Subpart MM. This condition has been deleted per the 40 CFR 63 Subpart MM updates.
-	6.1.9	Deleted	2631-185-0001-V-03-1	This condition specified periodic startup, shutdown, and malfunction reporting. This condition has been deleted per the 40 CFR 63 Subpart MM updates.
-	-	Added as Permit Condition 6.1.10 Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition defined the exceedance of the production rate of the proposed Tall Oil Reactor. As part of this renewal the condition was updated to reflect that the requirements are applicable to the replacement reactor and not the current reactor. The requirements of this condition were included in Permit Condition 6.1.7, and

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-03-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				Permit Condition 6.1.10 was deleted as part of this renewal.

B. Specific Record Keeping and Reporting Requirements

Permit Condition 6.2.3 requires records of the bypass lines monitoring per 40 CFR 63 Subpart S requirements. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.

Permit Condition 6.2.4 requires records of total HAP mass calculations per 40 CFR 63 Subpart S requirements. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.

Former Permit Condition 6.2.7 required records of operating hours for the Package Boiler. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition has been deleted since the Package Boiler has been removed from the permit.

Former Permit Condition 6.2.13 specifies corrective action plan requirements per 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to add 'Following October 11, 2019,', remove reference to Condition 6.2.14 in the first sentence, and add 'during times when spent pulping liquor or lime mud is fed (as applicable). Corrective action can include completion of transient startup and shutdown conditions as expediently as possible. Until October 11, 2019, correction action must be specified in the startup, shutdown, malfunction plan.' These changes are the result of the 40 CFR 63 Subpart MM updates. As part of this renewal the facility has requested that this condition be modified to remove reference to the initial compliance date since it has passed. Reference to the startup, shutdown, malfunction plan was also requested to be deleted as it is no longer required. The Division will make the requested revisions to this condition.

Former Permit Condition 6.2.14 specified the requirements to develop and implement a startup, shutdown, and malfunction plan per the requirements of 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition has been deleted per the 40 CFR 63 Subpart MM updates.

Former Permit Condition 6.2.15 specifies general records requirements per the requirements of 40 CFR 63, Subpart MM for applicable equipment. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Permit Condition 6.2.15.e was added to require records used to demonstrate compliance with Condition 5.2.34 per the 40 CFR 63 Subpart MM updates. As part of this renewal, the facility

has requested that Former Permit Condition 6.2.15.e reference to the initial compliance date should be deleted as it has passed. The Division will make the requested changes to this permit condition.

Former Permit Condition 6.2.17 specifies records of corrective actions per the requirements of 40 CFR 63, Subpart MM. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to reference Condition 6.1.7.b instead of 6.1.7.b.vi. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.

Former Permit Condition 6.2.18 specified quarterly reporting of 40 CFR 63, Subparts MM and S. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, this condition was modified to add 'Until October 11, 2019 the compliance date of the October 11, 2017 40 CFR 63 Subpart MM revisions'. As part of this permit renewal, the facility has requested that the Division remove entire condition as the compliance date has passed. Therefore, this condition was deleted.

Former Permit Condition 6.2.23 certifies affirmative defense per 40 CFR 63, Subpart DDDDD. This condition was modified to remove reference to permit conditions that are no longer applicable.

Former Permit Condition 6.2.25 specifies periodic compliance reporting per 40 CFR 63, Subpart DDDDD. This condition was modified to currently reference updated permit condition numbers. This condition was also modified as part of this renewal to require 5-year compliance reports for the Power Boiler No. 3 since it is equipped with a continuous oxygen trim system.

Former Permit Condition 6.2.28 specifies operating limits deviations reporting per 40 CFR 63, Subpart DDDDD. This condition was modified to currently reference updated permit condition numbers.

Former Permit Condition 6.2.29 reporting related to alternate short term operating limits per 40 CFR 63, Subpart DDDDD. This condition was modified to currently reference updated permit condition numbers.

Former Permit Condition 6.2.30 specifies fuel usage records requirements per 40 CFR 63, Subpart DDDDD. This condition was modified to currently reference updated permit condition numbers.

Former Permit Condition 6.2.34 specifies electronic file reporting of applicable reports the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to add the complete language of this regulation concerning reporting.

Former Permit Condition 6.2.35 specifies compliance reports content per 40 CFR 63, Subpart DDDDD. This condition was modified to currently reference updated permit condition numbers.

Former Permit Condition 6.2.42 specified compliance reporting per 40 CFR 63, Subpart ZZZZ for Source Code 9064. This condition has been removed as part of this renewal since Engine 9064 has been decommissioned.

Former Permit Condition 6.2.46 specifies reporting of emissions in relation to the Paper Machine Modification Project. This condition was modified to currently reference updated permit condition numbers.

Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Former Conditions 6.2.48 through 6.2.51 were added to require recordkeeping and reporting to meet the requirements of 40 CFR 63

Subpart MM per the 40 CFR 63 Subpart MM updates. Reference to initial compliance date should be deleted as it has passed. As part of this renewal, the facility has requested that Former Permit Condition 6.2.48 and 6.2.51 modified to delete reference to initial compliance dates since they have passed. The Division will make the requested changes.

Due to the method of calculating emissions for the purpose of PSD applicability, the facility will be required to maintain records of the details of the project; projected actual and annual emissions; all calculations in order to verify that the project did not trigger PSD applicability for applicable pollutants; and provide notification of the commencement and conclusion of the project described by Application No. 279133 per the requirements of 40 CFR 52.21(r)(6) and Georgia Rule 391- 3-1-.02(7)(b)15. Per Title V Permit Amendment Number 2361-185-0001-V-03-1, Former Permit Conditions 6.2.52 through 6.2.56 outline these requirements. As part of this renewal Former Permit Condition 6.2.55 was modified to correctly reference updated permit condition numbers. As part of this renewal the facility has requested that Former Permit Condition 6.2.52 be updated to delete "before beginning actual modification" since the modification is complete. The Division will make the requested modification. The facility also requested as part of this permit renewal that Former Permit Condition 6.2.56 be removed since the required notifications have been completed. The Division will delete this condition as requested.

Per Title V Permit Amendment Number 2361-185-0001-V-03-2, Former Permit Condition 6.2.58 was added to require maintenance of the replacement Tall Oil Reactor production records to demonstrate compliance with the PSD avoidance limit discussed above. This condition will take effect following installation of the replacement Tall Oil Reactor.

Permit Conditions 6.2.52 through 6.2.54 were added as part of this renewal to address record keeping and reporting requirements per 40 CFR 60, Subpart IIII as specified in the table below.

Permit Conditions 6.2.55 through 6.2.57 were added as part of this renewal to address record keeping and reporting requirements per 40 CFR 60, Subpart JJJJ as specified in the table below.
The following table summarizes applicable reporting and record keeping included in this renewal.

Summary of Permit Conditions in Section 6.0 of Permit Number 2631-185-0001-V-04-0

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.2.1	6.2.1	No	NA	This condition requires records of operation of the No. 4 Lime Kiln as the control device for the NCG system.
6.2.2	6.2.2	No	NA	This condition requires records of operating of the Combination Boilers as control devices for the NCG system, and records of operating hours of the Thermal Oxidizer as a control device for HVLC gases from the washer systems specified in the condition.
6.2.3	6.2.3	Modified	2631-185-0001-V-04-0	This condition requires records of bypass line monitoring as specified in the condition. This condition was modified as

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				part of this renewal to correctly refence updated permit condition numbers.
6.2.4	6.2.4	Modified	2631-185-0001-V-04-0	This condition requires records to calculate the total HAP mass as specified in the condition. This condition was modified as part of this renewal to correctly refence updated permit condition numbers.
6.2.5	6.2.5	No	NA	This condition specifies records requirements of excess emissions from the Steam Stripper.
6.2.6	6.2.6	No	NA	This condition requires a site- specific inspection plan for applicable equipment subject to 40 CFR 63, Subpart S.
-	6.2.7	Deleted	2631-185-0001-V-03-1	This condition required records of operating hours for the Package Boiler. This condition has been deleted since the Package Boiler has been removed from the permit.
6.2.7	6.2.8	No	NA	This condition specifies records needed to demonstrate compliance with PSD avoidance limits for the No. 4 Lime Kiln.
6.2.8	6.2.9	No	NA	This condition specifies fuel oil record keeping requirements.
6.2.9	6.2.10	No	NA	This condition requires quarterly reporting of applicable records.
6.2.10	6.2.11	No	NA	This condition specifies how SO_2 emissions from the TRS/NCG Systems are calculated to demonstrate compliance with PSD avoidance limits.
6.2.11	6.2.12	No	NA	This condition requires records of lime trucks unloaded from the Lime-Silo-Truck Unloading.
6.2.12	6.2.13	Modified Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specifies corrective action plan requirements per 40 CFR 63, Subpart MM. This condition was modified to add 'Following October 11, 2019,', remove reference to Condition 6.2.14 in the first sentence, and add 'during times when spent pulping liquor or lime mud is fed (as applicable). Corrective action can include completion of transient startup and shutdown conditions as expediently as possible. Until October 11, 2019, correction action must be specified in the startup, shutdown, malfunction plan.' These changes are the result of the 40 CFR 63 Subpart MM updates. As part of this renewal this condition will be modified to remove reference to the initial compliance date since it has passed, and remove reference to the startup, shutdown, malfunction plan since it is no longer required.
-	6.2.14	Deleted	2631-185-0001-V-03-1	This condition specified the requirements to develop and implement a startup,

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				shutdown, and malfunction plan per the requirements of 40 CFR 63, Subpart MM. This condition has been deleted per the 40 CFR 63 Subpart MM updates.
6.2.13	6.2.15	Modified	2631-185-0001-V-03-1	This condition specifies general records requirements per the requirements of 40 CFR 63, Subpart MM for applicable equipment. Permit Condition 6.2.15.e was added to require records used to demonstrate compliance with Condition 5.2.34 per the 40 CFR 63 Subpart MM updates. As part of this renewal, reference to the initial compliance date will be deleted as it has passed.
6.2.14	6.2.16	No	NA	This condition specifies applicable notifications per the requirements of 40 CFR 63, Subpart MM.
6.2.15	6.2.17	Modified Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specifies records of corrective actions per the requirements of 40 CFR 63, Subpart MM. This condition was modified to reference Condition 6.1.7.b instead of 6.1.7.b.vi. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
-	6.2.18	Modified Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition specified quarterly reporting of 40 CFR 63, Subparts MM and S. This condition was modified to add 'Until October 11, 2019 the compliance date of the October 11, 2017 40 CFR 63 Subpart MM revisions'. As part of this permit renewal, this condition will be removed the compliance date has passed.
6.2.16	6.2.19	No	NA	This condition requires daily paper production rate records.
6.2.17	6.2.20	No	NA	This condition requires records of natural gas usage in the No. 4 Recovery Furnace.
6.2.18	6.2.21	No	NA	This condition was added to specify records of malfunctions per 40 CFR 63, Subpart S.
6.2.19	6.2.22	No	NA	This condition was added to specify records of malfunctions of control devices per 40 CFR 63, Subpart S.
6.2.20	6.2.23	Modified	2631-185-0001-V-04-0	This condition was added to assert affirmative defense per 40 CFR 63, Subpart S. This condition was modified as part of this renewal to remove reference to reserved conditions that have been removed as part of this permit renewal.
6.2.21	6.2.24	No	NA	This condition specifies records of boiler tune ups per 40 CFR 63, Subpart DDDDD.

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
6.2.22	6.2.25	Modified	2631-185-0001-V-04-0	This condition specifies periodic compliance reports per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference updated permit condition numbers. This condition was also modified as part of this renewal to require 5-year compliance reports for the Power Boiler No. 3 since it not equipped with a continuous oxygen trim system.
-	6.2.26	Deleted	2631-185-0001-V-04-0	This condition was a reserved condition that has been removed as part of this renewal.
6.2.23	6.2.27	No	NA	This condition specifies notifications for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.24	6.2.28	Modified	2631-185-0001-V-04-0	This condition specifies deviation reporting for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
6.2.25	6.2.29	Modified	2631-185-0001-V-04-0	This condition specifies reporting for short term operating limits for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
6.2.26	6.2.30	Modified	2631-185-0001-V-04-0	This condition specifies fuel usage records for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
-	6.2.31	Deleted	2631-185-0001-V-04-0	This condition was a reserved condition that has been removed as part of this renewal.
6.2.27	6.2.32	No	NA	This condition specifies performance testing reporting for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.28	6.2.33	No	NA	This condition specifies electronic reporting of performance testing to EPA for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.29	6.2.34	Modified	2631-185-0001-V-04-0	This condition specifies electronic file reporting of applicable reports the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was modified as part of this renewal to add the complete language of this regulation concerning reporting.
6.2.30	6.2.35	Modified	2631-185-0001-V-04-0	This condition specifies the requirements of the compliance reports for the Combination Boilers per 40 CFR 63, Subpart DDDDD. This condition was

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				modified as part of this renewal to correctly reference updated permit condition numbers.
6.2.31	6.2.36	No	NA	This condition specifies the recordkeeping schedule requirements for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.32	6.2.37	No	NA	This condition specifies the requirements of reports/notification copies maintenance for the Combination Boilers per 40 CFR 63, Subpart DDDDD
6.2.33	6.2.38	No	NA	This condition specifies the recordkeeping requirements for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.34	6.2.39	No	NA	This condition specifies records for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.35	6.2.40	No	NA	This condition specifies records for the continuous monitoring systems for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.36	6.2.41	No	NA	This condition specifies site specific plans for the Combination Boilers per 40 CFR 63, Subpart DDDDD.
6.2.37	6.2.42	No	NA	This condition specifies the record schedule for the engines per 40 CFR 63, Subpart ZZZZ.
-	6.2.43	Deleted	2631-185-0001-V-04-0	This condition specified reporting for the engines per 40 CFR 63, Subpart ZZZZ. This condition was deleted since the applicable engine has been decommissioned.
6.2.38	6.2.44	No	NA	This condition specifies record keeping of NSR pollutants for five years following the paper machine modification project as discussed above in Section VI, B of this document.
6.2.39	6.2.45	No	NA	This condition specifies calculation of actual emissions increases of NSR pollutants for five years following the paper machine modification project as discussed above in Section VI, B of this document.
6.2.40	6.2.46	Modified	2631-185-0001-V-04-0	This condition requires submittal of the reporting of annual NSR pollutant emissions following the paper machine modification project as discussed above in Section VI, B of this document. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
6.2.41	6.2.47	No	NA	This condition specifies Power Boiler No. 3 natural gas usage records to demonstrate compliance with PSD avoidance limits.
6.2.42	-	Added as Permit Condition 6.2.48	2631-185-0001-V-03-1	This condition was added to require recordkeeping and reporting to meet the

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
		Modified	2631-185-0001-V-04-0	requirements of 40 CFR 63 Subpart MM per the 40 CFR 63 Subpart MM updates. This condition has been modified as part of this renewal to remove reference to initial compliance date since it has passed.
6.2.43	-	Added as Permit Condition 6.2.49	2631-185-0001-V-03-1	This condition was added to require recordkeeping and reporting to meet the requirements of 40 CFR 63 Subpart MM per the 40 CFR 63 Subpart MM updates.
6.2.44	-	Added as Permit Condition 6.2.50	2631-185-0001-V-03-1	This condition was added to require recordkeeping and reporting to meet the requirements of 40 CFR 63 Subpart MM per the 40 CFR 63 Subpart MM updates.
6.2.45	-	Added as Permit Condition 6.2.51 Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition was added to require recordkeeping and reporting to meet the requirements of 40 CFR 63 Subpart MM per the 40 CFR 63 Subpart MM updates. This condition has been modified as part of this renewal to remove reference to initial compliance date since it has passed.
6.2.46	-	Added as Permit Condition 6.2.52 Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition requires the facility to maintain records of the details of the applicable project due to PSD applicability calculations. As part of this renewal this condition will be updated to delete "before beginning actual modification" since the modification is complete. The deleted language was replaced with "associated with the modification addressed by Permit Application Number 279133".
6.2.47	-	Added as Permit Condition 6.2.53	2631-185-0001-V-03-1	This condition requires the facility to maintain records of the details of the applicable project due to PSD applicability calculations.
6.2.48	-	Added as Permit Condition 6.2.54	2631-185-0001-V-03-1	This condition requires the facility to maintain records of the details of the applicable project due to PSD applicability calculations.
6.2.49	-	Added as Permit Condition 6.2.55 Modified	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition requires the facility to perform annual reporting of the details of the applicable project due to PSD applicability calculations. This condition was modified as part of this renewal to correctly reference updated permit condition numbers.
-	-	Added as Permit Condition 6.2.56 Deleted	2631-185-0001-V-03-1 2631-185-0001-V-04-0	This condition requires the facility to maintain records of the details of the applicable project due to PSD applicability calculations. This condition will be removed since the required notifications have been completed.
6.2.50	-	Added as Permit Condition 6.2.57	2631-185-0001-V-03-1	This condition requires the installation and maintenance of no trespassing signs along a section of the source boundary utilized in the ambient impact

Permit Condition in Permit Number 2631-185-0001-V-04-0	Permit Condition Number in Permit Number 2631-185-0001-V-04-0	Permit Condition Deleted, Modified or Added since issuance of Permit Number 2631-185-0001-V-03-0	Deleted Modified or Added per what Permit Number	Explanation of Permit Condition
				assessment/modeling for Application No. 279133
6.2.51	-	Added as Permit Condition 6.2.58 Modified	2631-185-0001-V-03-3 2631-185-0001-V-04-0	This condition was added to require maintenance of the replacement Tall Oil Reactor production records to demonstrate compliance with the PSD avoidance limit. This condition will take effect following the installation of the replacement Tall Oil Reactor. This condition was modified to address facility concerns related to the proposed replacement reactor monitoring which would not be applicable to the current reactor.
6.2.52	-	Added as Permit Condition 6.2.52	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify engine requirements per 40 CFR 60, Subpart IIII.
6.2.53	-	Added as Permit Condition 6.2.53	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify maintenance records requirements per 40 CFR 60, Subpart IIII.
6.2.54	-	Added as Permit Condition 6.2.54	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify fuel oil records requirements per 40 CFR 60, Subpart IIII.
6.2.55	-	Added as Permit Condition 6.2.55	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify engine requirements per 40 CFR 60, Subpart JJJJ.
6.2.56	-	Added as Permit Condition 6.2.56	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify operating requirements per 40 CFR 60, Subpart JJJJ.
6.2.57	-	Added as Permit Condition 6.2.57	2631-185-0001-V-04-0	This condition was added as part of this renewal to specify maintenance records requirements per 40 CFR 60, Subpart JJJJ.

VII. Specific Requirements

A. Operational Flexibility

Not Applicable.

B. Alternative Requirements

Not Applicable.

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

Not Applicable.

E. Short-Term Activities

Not Applicable.

F. Compliance Schedule/Progress Reports

Not Applicable. No compliance schedule/progress reports are added as part of this renewal.

G. Emissions Trading

Not Applicable.

H. Acid Rain Requirements

Not Applicable.

I. Stratospheric Ozone Protection Requirements

The standard permit condition pursuant to 40 CFR 82 Subpart F is included in Permit Number 2631-185-0001-V-04-0. These Title VI requirements apply to all air conditioning and refrigeration units containing ozone-depleting substances regardless of the size of the unit or of the source.

J. Pollution Prevention

Not Applicable.

K. Specific Conditions

Not 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

The 30-day public review started on October 15, 2024 and ended on November 15, 2024. Comments were not received by the Division.