

Facility Name: **Graphic Packaging International, LLC – Augusta Mill**

City: Augusta

County: Richmond

AIRS #: 04-13-245-00006

Application #: 753079

Date SIP Application Received: September 6, 2023

Date Title V Application Received: August 14, 2023

Permit No: 2631-245-0006-V-05-1

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Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public comment period and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Existing Permits**

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Description
2631-245-0006-V-05-0	February 15, 2021	Title V Renewal

B. Regulatory Status**1. PSD/NSR/RACT**

The site is defined as a “major stationary source” since, as a pulp and paper mill, GPI – Augusta Mill has a potential to emit 100 tpy or more of several criteria pollutants subject to regulations under the Clean Air Act. Pulp and paper mills are on the list of 28 industry categories subject to the 100 tpy major source thresholds. The site is considered a major source under Prevention of Significant Deterioration (PSD) regulations since potential emissions exceed 100 tpy for each pollutant. However, some limits have been taken to avoid PSD on certain previous modifications. They are as follows:

- The No. 3 Recovery Boiler (RB3A) is limited to 697.0 lb/hr of sulfur dioxide (SO₂) emissions and 317.6 lb/hr of nitrogen oxides (NO_x) emissions. The NO_x limit was part of a 1988 amendment to provide offsets for changes in Phase II of the 1985 PSD Expansion Project. Based on the worst-case NCASI emission factor, the No. 3 Recovery Boiler NO_x emissions would be 206.25 lb/hr, and the limit will not be exceeded. Therefore, the limit and corresponding testing and monitoring were removed in the appeal of the Initial Title V Permit.
- The No. 3 Power Boiler (PB3A) is limited to 0.075 lb/MMBtu of particulate matter (PM) emissions except during periods of startup, shutdown, and malfunction.
- The Riley Auxiliary Boiler (RLYA) must be used in standby service and operated only when one of the primary boilers is offline.
- The Riley Auxiliary Boiler (RLYA) may only fire No. 2 fuel oil when natural gas is unavailable or the natural gas supplier curtails usage. The No. 2 fuel oil must have a sulfur content less than 0.5 percent by weight.
- The Riley Auxiliary Boiler (RLYA) may fire no more than 1,300,000 gallons of No. 2 fuel oil during any twelve consecutive months.
- The White Liquor Scrubbers (WLSA and WLSB) must operate so as to achieve a minimum removal efficiency for total reduced sulfur compounds (TRS) of 65 percent by weight.

Prior to this proposed permit modification, the sulfur content of coal fired in Nos. 1 and 2 Power Boilers (PB1A and PB2A) was limited to no more than 1.2 percent by weight as a PSD Avoidance Limit. However, since coal is no longer fired in the Nos. 1 and 2 Power Boilers as discussed later in the document, this PSD Avoidance Limit is no longer valid and therefore has been removed.

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 ₂ S	Y	✓		
Individual HAP	Y	✓		
Total HAPs	Y	✓		

II. Proposed Modification

A. Description of Modification

According to Application Number 753079, the facility is proposing to replace or modify multiple emissions units throughout the Mill as part of the modification, as summarized below. The Project includes some smaller projects that are planned to be completed in 2023 that the Mill has submitted off-permit changes for. These projects primarily impact water usage and process stability and will have minimal impact on pulp production. The facility has included the impact of these projects in the assessment for the overall project.

B. Emissions Change

Table 3: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	Y	-	+0.06
PM ₁₀	Y	-	-20.00
PM _{2.5}	Y	-	-20.20
SO ₂	Y	-	-1,438.91
VOC	Y	-	-359.18
NO _x	Y	-	-577.09
CO	Y	-	-151.15
TRS	Y	-	-13.95
H ₂ S	Y	-	-13.95
Individual HAP (methanol)	Y	-	-23.06
Individual HAP (phenol)	Y	-	+1.24
Total HAPs	Y	-	-31.21

Notes:

1. Emissions changes presented in the above table were taken from the spreadsheet provided by the facility's consultant, Ms. Lizzie Smith, Managing Consultant of *ALL4* in an email dated October 4, 2023.
2. Pre-Project PTE are based on information from the most recent Title V Operating Permit renewal application, submitted in February 2019.
3. Post-Project PTE were determined as follows: Post-Project PTE = Pre-Project PTE - PTE of Shutdown Sources + PTE of New Sources.
4. A conservative approach was taken to be consistent with the PSD analysis and assumed H₂S=TRS.
5. Worst Case individual HAP information is provided for the potential HAP with the largest decrease in emissions (methanol) and the potential HAP with the largest increase in emissions (phenol) due to the proposed modification.

C. PSD/NSR Applicability

Table 0-1 of Application Number 753079, presented below, provides the status of each emissions unit impacted by the Project. The Project includes the replacement of the existing No. 2 Brownstock Washer with a DD washer and the replacement of the No. 1 Slaker with a new slaker. According to Georgia Rule 391-3-1-.01(pp), modified emissions units for the purposes of PSD are defined as those emissions units that will undergo a physical change or a change in the method of operation that affects emissions. The Nos. 2 and 3 Digester and the No. 3 Brownstock Washer will be modified by the proposed project; however, as emissions from the Nos. 2 and 3 Digesters are controlled by the LVHC system, the digesters do not have direct emissions and are not included in the emissions inventory.

Affected emissions units are those units that are impacted by the proposed changes and will experience an increase in emissions as a result of a modification to an emissions unit located upstream or downstream (e.g., additional uptime, de-bottlenecking). The affected units have been included in the PSD evaluation.

As discussed later in this section, project-related emissions increases for all regulated NSR pollutants are below the PSD significant emissions rates; therefore, greenhouse gas (GHG) emissions were not included in the applicability analysis because PSD cannot be triggered based solely on GHG, per 40 CFR 52.21(b)(49)(iv).

Table 0-1
Emissions Unit Status

Source	Affected/Modified/New/Shutdown
AU - Bleach Plant System 2 (BP2A)	Affected
AU - Bleach Plant System 3 (BP3A)	Affected
AU - BP ClO ₂ Gen. 1 (R8AA)	Affected
AU - Causticizer 1 (CAU1)	Affected
AU - Causticizer 2 (CAU2)	Affected
AU - LK1 (LK1A)	Affected
AU - LK2 (LK2A)	Affected
AU - Slaker Scrubber 1 (SLK1)	Shutdown
AU - Slaker Scrubber 2 (SLK2)	Affected
AU - PM1 Dryer (IR & Air Cap Dryers) (PM1A)	Affected
AU - PM3 Dryer (IR & Air Cap Dryers) (PM3A)	Affected
AU - PM1 (E2)	Affected
AU - PM3 (E2)	Affected

Table 0-1
Emissions Unit Status

Source	Affected/Modified/New/Shutdown
AU - PM Paperboard Coatings (Various) (E1)	Affected
AU - GP -1 Aggregate Natural Gas	Affected
AU - PB 1 (PB1A)	Affected
AU - PB 2 (PB2A)	Affected
AU - PB 3 (PB3A)	Affected
AU - Brown Stock Washers Pulp Mill 2 (BSW2)	Shutdown
AU - Brown Stock Washers Pulp Mill 3 (BSW3)	Modified
AU - RB SDT Scrubber (ST3A)	Affected
AU - Salt Cake Mix Tank 3	Affected
AU - WBL Tanks 1,2,3 and Filtrate 2A/B (NCGF)	Affected
AU - Log Processing-HWD&SWD (WOOD)	Affected
AU - Pond 3 (PPCC)	Affected
AU - Pond 1 & 2 (WWTP)	Affected
AU - Pond 5 (Pond 1 & 2 Contribution) (WWTP)	Affected
AU - Pond 5 (Pond 3 Contribution) (WWTP)	Affected
AU - Pond 5 (Pond 4 Contribution) (WWTP)	Affected
AU - Primary Clarifier (WWTP)	Affected
AU - Waste Water Treatment Plant (WWTP)	Affected
AU - RB3 (RB3A)	Affected
AU - TG2 Cooling Tower	Affected
AU - DD Washer Pulp Mill 2	New
AU - No. 1 Slaker (NEW)	New
AU - Paper Machine Cooling Tower	New

According to Application Number 753079, a determination of PSD applicability was made based on the total project-related emissions increases from the new, modified and affected emissions units. The total project-related emissions increases are calculated as follows:

Project Increases = PAE – BAE – Excludable Emissions + PTE for New Sources – BAE for Shutdown Sources

Where:

Excludable Emissions = CHA Emissions – BAE

PAE = projected actual emissions

BAE = baseline actual emissions

CHA = could have accommodated

Per the March 13, 2018 United States Environmental Protection Agency (U.S. EPA) memorandum regarding Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program and conversations with the Division, Graphic Packaging International, LLC – Augusta Mill (GPI) has included emissions reductions from shutting down the existing No. 2 Brownstock Washer (Emissions Unit BSW2) and No. 1 Slaker (Emissions Unit SLK1A) in the PSD assessment for the Project. As a result, the Mill is using the emissions reductions in PM, PM₁₀, PM_{2.5}, VOC, TRS, and H₂S for shutting down these emissions units in the PSD analysis.

The project-related emissions increases for each regulated NSR pollutant, considering excludable emissions and project emissions accounting, are presented in Table A-4 of Appendix A of Application Number 753079.

According to Application Number 753079, the results of the applicability analysis demonstrate that the project-related emissions increases are below the PSD significant emissions rates for all regulated NSR pollutants. Because the Project's emissions increases for these pollutants are below the PSD significant emissions rates, a contemporaneous netting evaluation is not required, and the Project does not meet the definition of a major modification under PSD.

Georgia air regulations contain provisions related to a source's obligation to track actual emissions in the future for comparison against the PAE included in a project PSD applicability analysis. Specifically, G.A.C. §391-3-1-.02(7)(b)(15)(i)(III) requires the facility to monitor the emissions of any regulated NSR pollutant that could increase as a result of the Project and that is emitted by any new, modified, or affected emissions unit, and calculate and maintain a record of the annual emissions, in tpy on a calendar year basis, for a period of 10 years following resumption of regular operations after the change.

The facility PSD applicability for the proposed Project is detailed in Section 3.0 and Appendix A of narrative associated with Application Number 753079. Based on the analysis, the Project will not result in an emissions increase in excess of the PSD significant emissions rate for any regulated NSR pollutant and, therefore, does not meet the definition of a major modification and does not trigger PSD permitting requirements.

The following table, Table A-4 as provided in Appendix 4 of Application Number 753079, is presented below.

Table A-4
Summary of Project-Related Emissions Increases and PSD Applicability
Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - Bleach Plant System 2 (BP2A)	Affected	0.00	0.00	0.00	0.00	0.00	8.67	0.78	0.00	0.00	0.00	0.01	0.01
AU - Bleach Plant System 3 (BP3A)	Affected	0.00	0.00	0.00	0.00	0.00	25.10	2.07	0.00	0.00	0.00	0.23	0.23
AU - BP ClO ₂ Gen. 1 (R8AA)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Causticizer 1 (CAU1)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
AU - Causticizer 2 (CAU2)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - LK1 (LK1A)	Affected	0.00	0.00	0.00	0.81	0.00	0.05	0.08	1.24E-04	0.00	0.00	0.91	0.91
AU - LK2 (LK2A)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
AU - Slaker Scrubber 1 (SLK1)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Slaker Scrubber 2 (SLK2)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - PM1 Dryer (IR & Air Cap Dryers) (PM1A)	Affected	0.02	0.01	0.00	0.58	0.01	1.94	0.00	5.89E-06	0.00	0.00	0.00	0.00
AU - PM3 Dryer (IR & Air Cap Dryers) (PM3A)	Affected	0.11	0.03	0.02	3.28	0.02	2.61	0.00	7.66E-06	0.00	0.00	0.00	0.00
AU - PM1 (E2)	Affected	0.10	0.16	0.13	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.10	0.10
AU - PM3 (E2)	Affected	0.10	0.16	0.13	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.29	0.29
AU - PM Paperboard Coatings (Various) (E1)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
AU - PB 1 (PB1A)	Affected	0.00	0.00	0.00	0.00	99.83	0.00	0.00	0.02	0.00	0.00	0.00	0.00
AU - PB 2 (PB2A)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - PB 3 (PB3A)	Affected	0.09	1.26	1.13	16.53	0.11	0.00	1.70	0.00	0.00	0.00	0.00	0.00
AU - Brown Stock Washers Pulp Mill 3 (BSW3)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	7.19	0.00	0.00	0.00	9.22	9.22

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(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - RB SDT Scrubber (ST3A)	Affected	12.95	13.13	13.13	0.00	0.10	0.77	0.00	4.32E-05	0.00	0.00	0.91	0.91
AU - Salt Cake Mix Tank 3	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
AU - WBL Tanks 1,2,3 and Filtrate 2A/B (NCGF)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.06	0.06
AU - Log Processing-HWD&SWD (WOOD)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Pond 3 (PPCC)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00
AU - Pond 1 & 2 (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	10.20	0.00	0.00	0.00	0.00	0.00
AU - Pond 5 (Pond 1 & 2 Contribution) (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
AU - Pond 5 (Pond 3 Contribution) (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
AU - Pond 5 (Pond 4 Contribution) (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.00	0.00
AU - Primary Clarifier (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
AU - Waste Water Treatment Plant (WWTP)	Affected	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
AU - RB3 (RB3A)	Affected	0.00	0.31	0.53	19.82	1.15	75.41	1.02	6.80E-04	0.00	0.21	0.00	0.00
AU - TG2 Cooling Tower	Affected	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Haul Roads Unpaved	Affected	14.43	4.13	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Haul Roads Paved	Affected	0.32	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Project Emissions Increases (PAE - BAE)		28.1	19.3	15.5	41.0	101.2	114.5	27.5	0.02	0.0	0.2	11.8	11.8
PSD Significant Emissions Rate		25.0	15.0	10.0	40.0	40.0	100	40	0.6	3.0	7.0	10.0	10.0
PSD Significant?		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes
AU - Bleach Plant System 2 (BP2A)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	4.62	--	0.00	--	--	0.02	0.02

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Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - Bleach Plant System 3 (BP3A)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	14.41	--	0.00	--	--	0.15	0.15
AU - BP ClO ₂ Gen. 1 (R8AA)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Causticizer 1 (CAU1)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.26	0.26
AU - Causticizer 2 (CAU2)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.75	0.75
AU - LK1 (LK1A)	Excludable Emissions	1.56	1.92	1.92	2.43	0.06	0.06	--	0.26	--	--	0.05	0.05
AU - LK2 (LK2A)	Excludable Emissions	4.23	5.77	5.77	10.87	0.38	0.38	--	0.78	--	--	0.53	0.53
AU - Slaker Scrubber 1 (SLK1)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Slaker Scrubber 2 (SLK2)	Excludable Emissions	0.82	0.82	0.82	0.00	0.00	0.00	--	0.00	--	--	1.11	1.11
AU - PM1 Dryer (IR & Air Cap Dryers) (PM1A)	Excludable Emissions	0.00	0.00	0.00	0.00	8.53E-04	0.26	--	0.00	--	--	0.00	0.00
AU - PM3 Dryer (IR & Air Cap Dryers) (PM3A)	Excludable Emissions	0.08	0.02	0.02	2.60	0.01	1.73	--	0.00	--	--	0.00	0.00
AU - PM1 (E2)	Excludable Emissions	0.12	0.19	0.16	0.00	0.00	0.00	--	0.00	--	--	0.13	0.13
AU - PM3 (E2)	Excludable Emissions	0.36	0.60	0.49	0.00	0.00	0.00	--	0.00	--	--	0.21	0.21
AU - PM Paperboard Coatings (Various) (E1)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - PB 1 (PB1A)	Excludable Emissions	24.95	30.40	30.40	90.36	216.06	169.87	--	0.00	--	--	0.00	0.00
AU - PB 2 (PB2A)	Excludable Emissions	1.33	0.36	0.30	104.68	1,317	34.36	--	0.00	--	--	0.00	0.00

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Summary of Project-Related Emissions Increases and PSD Applicability
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(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - PB 3 (PB3A)	Excludable Emissions	26.53	25.68	20.67	94.04	1.23	62.60	--	0.00	--	--	0.00	0.00
AU - Brown Stock Washers Pulp Mill 2 (BSW2)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Brown Stock Washers Pulp Mill 3 (BSW3)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	3.93	3.93
AU - RB SDT Scrubber (ST3A)	Excludable Emissions	21.77	22.71	22.71	0.00	0.32	0.60	--	0.00	--	--	0.49	0.49
AU - Salt Cake Mix Tank 3	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - WBL Tanks 1,2,3 and Filtrate 2A/B (NCGF)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.83	0.83
AU - Log Processing-HWD&SWD (WOOD)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Pond 3 (PPCC)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Pond 1 & 2 (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	7.21	7.21
AU - Pond 5 (Pond 1 & 2 Contribution) (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Pond 5 (Pond 3 Contribution) (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Pond 5 (Pond 4 Contribution) (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Primary Clarifier (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Waste Water Treatment Plant (WWTP)	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - RB3 (RB3A)	Excludable Emissions	20.61	15.52	12.26	82.82	3.53	47.51	--	0.00	--	--	0.00	0.00

Table A-4
Summary of Project-Related Emissions Increases and PSD Applicability
Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - TG2 Cooling Tower	Excludable Emissions	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Haul Roads Unpaved	Excludable Emissions	11.86	3.39	0.35	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
AU - Haul Roads Paved	Excludable Emissions	0.26	0.06	0.02	0.00	0.00	0.00	--	0.00	--	--	0.00	0.00
Total Excludable Emissions (CHA - BAE)		114.48	107.43	95.88	387.80	1,538.74	337.42	0.00	0.00	0.00	0.00	15.65	15.65
AU - Bleach Plant System 2 (BP2A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	4.06	0.78	0.00	0.00	0.00	0.00	0.00
AU - Bleach Plant System 3 (BP3A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	10.69	2.07	0.00	0.00	0.00	0.08	0.08
AU - BP ClO ₂ Gen. 1 (R8AA)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Causticizer 1 (CAU1)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Causticizer 2 (CAU2)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - LK1 (LK1A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.08	1.24E-04	0.00	5.47E-07	0.86	0.86
AU - LK2 (LK2A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
AU - Slaker Scrubber 1 (SLK1)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Slaker Scrubber 2 (SLK2)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - PM1 Dryer (IR & Air Cap Dryers) (PM1A)	Emissions Increases	0.02	5.13E-03	4.26E-03	0.58	4.22E-03	1.68	0.00	5.29E-06	0.00	0.00	0.00	0.00
AU - PM3 Dryer (IR & Air Cap Dryers) (PM3A)	Emissions Increases	0.02	6.03E-03	4.99E-03	0.68	5.03E-03	0.88	0.00	7.66E-06	0.00	0.00	0.00	0.00

Table A-4
Summary of Project-Related Emissions Increases and PSD Applicability
Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - PM1 (E2)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
AU - PM3 (E2)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.08	0.08
AU - PM Paperboard Coatings (Various) (E1)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
AU - PB 1 (PB1A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - PB 2 (PB2A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - PB 3 (PB3A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00
AU - Brown Stock Washers Pulp Mill 2 (BSW2)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Brown Stock Washers Pulp Mill 3 (BSW3)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	7.19	0.00	0.00	0.00	5.30	5.30
AU - RB SDT Scrubber (ST3A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.25	0.00	4.32E-05	0.00	0.00	0.42	0.42
AU - Salt Cake Mix Tank 3	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
AU - WBL Tanks 1,2,3 and Filtrate 2A/B (NCGF)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
AU - Log Processing-HWD&SWD (WOOD)	Emissions Increases	1.91E-03	5.23E-05	8.89E-06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Pond 3 (PPCC)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00
AU - Pond 1 & 2 (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	10.20	0.00	0.00	0.00	0.00	0.00
AU - Pond 5 (Pond 1 & 2 Contribution) (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00

Table A-4
Summary of Project-Related Emissions Increases and PSD Applicability
Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - Pond 5 (Pond 3 Contribution) (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
AU - Pond 5 (Pond 4 Contribution) (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.00	0.00
AU - Primary Clarifier (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
AU - Waste Water Treatment Plant (WWTP)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	0.00	6.14E-03	0.00	0.00	0.00	0.00	0.00
AU - RB3 (RB3A)	Emissions Increases	0.00	0.00	0.00	0.00	0.00	27.90	1.02	6.80E-04	0.00	0.21	0.00	0.00
AU - TG2 Cooling Tower	Emissions Increases	0.02	0.02	8.32E-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Haul Roads Unpaved	Emissions Increases	2.57	0.73	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AU - Haul Roads Paved	Emissions Increases	0.06	0.01	4.07E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Potential to Emit (PTE) for New Emissions Units													
AU - DD Washer Pulp Mill 2	New	0.00	0.00	0.00	0.00	0.00	0.00	35.87	0.00	0.00	0.00	8.67	8.67
AU - No. 1 Slaker (NEW)	New	2.32	2.32	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.29	4.29
AU - Paper Machine Cooling Tower	New	0.22	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Project Emissions Increases (PAE - Excludable - BAE) + PTE for New Sources		5.22	3.30	2.41	1.26	0.01	45.45	63.37	0.02	0.00	0.22	19.69	19.69
PSD Significant Emissions Rate		25	15	10	40	40	100	40	0.6	3	7	10	10
PSD Significant?		No	No	No	No	No	No	Yes	No	No	No	Yes	Yes
Netting - BAE Shutdown Emissions Units													
AU - Brown Stock Washers Pulp Mill 2 (BSW2)	Shutdown	0.00	0.00	0.00	0.00	0.00	0.00	218.36	0.00	0.00	0.00	18.23	18.23

Table A-4
Summary of Project-Related Emissions Increases and PSD Applicability
Graphic Packaging International - Augusta, GA Mill
(tons/year)

Source	Status	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	Pb	HF	H ₂ SO ₄	TRS	H ₂ S
AU - Slaker Scrubber 1 (SLK1)	Shutdown	0.97	0.97	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79	1.79
Total Project Emissions Increases (PAE - Excludable - BAE) + PTE for New Sources - BAE for Shutdown Sources		4.26	2.33	1.45	1.26	0.01	45.45	0.00	0.02	0.00	0.22	0.00	0.00
PSD Significant Emissions Rate		25	15	10	40	40	100	40	0.6	3	7	10	10
PSD Significant?		No	No	No	No	No	No	No	No	No	No	No	No

III. Facility Wide Requirements

A. Emission and Operating Caps:

There are no facility wide emission and/or operating caps added, modified, or removed as a result of this permit modification.

B. Applicable Rules and Regulations

Rules and Regulations Assessment – No facility wide rules and/or regulations assessment was added, modified, or removed as a result of this proposed permit modification.

Emission and Operating Standards – No facility emissions and/or operating standards were added, modified, or removed as a result of this proposed permit modification.

C. Compliance Status

Application Number 753079 does not address facility wide compliance status.

D. Permit Conditions

No permit conditions were added, removed, and/or removed from Section 2.0 of the Permit.

IV. Regulated Equipment Requirements

A. Brief Process Description

No. 2 Fiberline

According to Application Number 753079, the facility proposes to replace the No. 2 Brownstock Washer (Emissions Unit BSW2), which is currently a vacuum-drum style washer, with a displacement drum (DD) style washer. The replacement of the No. 2 Brownstock Washer with the DD Washer will allow for improved washing prior to pulp being sent to the No. 2 Bleach Plant (Emissions Unit BP2A) under all conditions and will reduce or eliminate losses of filtrate to the sewer. The facility also anticipates a reduction in chlorine dioxide (ClO₂) usage in the No. 2 Bleach Plant and a reduction in water usage on the No. 2 Fiberline.

In addition to the No. 2 Brownstock Washer Replacement, the Mill proposes to complete the following projects for the No. 2 Fiberline to improve process stability and reduce hydraulic and organic loading to the WWTP:

- When the pressure diffuser on the No. 2 Digester (part of Emissions Unit LVHC) is plugged, currently the only option is to flush the pressure diffuser with brownstock washer filtrate. Combined condensate will now be piped to the pressure diffuser to be used to flush the pressure diffuser, which will allow for flushing without the high organic loading to the sewer. The combined condensate to be used for flushing the diffuser is not required to be collected for purposes of compliance with 40 CFR Part 63, Subpart S. Using combined condensate to flush the pressure diffuser rather than washer filtrate will not result in an increase in emissions from the pressure diffuser during flushing events according to Application Number 753079.
- The No. 2 Digester pressure diffuser will be improved by installing vertical shower headers which are less prone to plugging.
- The chip chute on the No. 2 Digester will be replaced with a larger oval-shaped chip chute to reduce the number of chip feed system trip outs due to chip chute high level interlocks.
- Piping will be installed to allow venting from the No. 2 Digester impregnation vessel (IV) and digester to the flash tanks instead of to the steaming vessel to prevent feed system trips in the steaming vessel due to high chip chute level.
- Additional improvements will be made to process controls and monitors to allow for more timely decision-making by operations personnel.
- Other miscellaneous equipment and operational changes intended to improve stability of the No. 2 Fiberline operations will be made.

No. 3 Fiberline

The facility proposes to replace the chip meter on the No. 3 Digester (part of Emissions Unit LVHC) with a turbo chip meter which will allow for increased chip feed and therefore increased production rates on the No. 3 Digester. The facility proposes to install a cold blow cooler to cool the wash filtrate, as the increased pulp production will result in higher blow gas temperatures. This change will allow for the No. 3 Digester to produce all of the hardwood pulp demanded by the paper machines, which will reduce or eliminate the need to swing the No. 2 Digester from softwood to hardwood thus reducing or eliminating the process instability that is created with changing wood species in a continuous digester.

In addition to the turbo chip meter and cold blow cooler, the facility proposes to complete the following projects for the No. 3 Fiberline to improve process stability and reduce hydraulic and organic loading to the WWTP:

- A knots separator will be added following the existing knotter, which will eliminate the recycling of knots in the No. 3 Digester system to reduce pluggage. The knots separator will also remove knots and recover liquor back into the process, keeping it out of the sewer. The existing secondary vibratory knotters, knots tank, and knot drainer will be removed.
- A screen reject separator will be installed following the existing screens system to separate the reject fiber from the filtrate. Reject fiber will be discharged to a bunker and will be taken to the landfill for disposal. Filtrate will be recycled to the tertiary screen supply tank.
- A weak black liquor fiber filter will be installed to improve washing on the No. 3 Brownstock Washer (Emissions Unit BSW3).
- The knots tank will be repurposed to a spill collection tank. Collection weirs will be installed on washer vats.
- Controls will be upgraded to allow for better consistency control, better dosage of bleaching chemical, and improved filtrate management controls.
- Other miscellaneous equipment and operational changes intended to improve stability of the No. 3 Fiberline operations will be made.

Causticizing Area

According to Application Number 753079, the facility proposes to complete the following projects in the causticizing area, in addition to other miscellaneous equipment and operational changes intended to improve stability of the causticizing area:

- Upgrade the ECO filters.
- Replace the No. 1 Slaker (Emissions Unit SLK1A).
- Upgrade controls on the Chlorine Dioxide Generator (Emissions Unit R10A).

Paper Machine Area

The Mill proposes to implement whitewater filtering and reuse on the showers on Nos. 1 and 3 Paper Machines. These projects will result in a decrease in freshwater usage on the paper machines.

Power House Area

The Mill plans to implement the following projects in the Power House area:

- Bleach Plant E-stage effluent will be repurposed for wet ash sluicing and will replace fresh water currently used for this purpose.
- A cooling tower will be installed (New Emissions Unit Paper Machine (PM) Cooling Tower) for the No. 1 Paper Machine vacuum pump seal water supply, creating a closed loop and eliminating freshwater usage for this purpose.

Additionally, as part of this permit modification, the facility plans to remove coal as a permitted fuel for the No. 1 Power Boiler. The Mill's coal storage and handling equipment have been demolished or are no longer operable, and the facility does not have plans to burn coal in the future. Coal firing in the No. 1 Power Boiler was not included in calculating the projected actual emissions for the Project. Section 1.3 of the facility's permit will be modified as part of this permit amendment to remove "pulverized coal" as a permitted fuel for the No. 1 Power Boiler.

Mill General

The facility plans to implement the following projects throughout the Mill:

- A cooling water collection system will be added to the Lime Kiln Trunnion to collect and reuse cooling water, reducing freshwater usage and flow to the WWTP.
- Air conditioning water from motor control rooms across the Power House will be collected for reuse in the Mill processes.
- Flow meters will be installed to monitor seal water use and reduce seal water infiltration into the process. Seals will be converted to zero water use seals where appropriate across the Mill.
- Air conditioning systems in shops, stores, and office areas will be converted from Mill water to cooling water using the No. 2 Turbine Generator cooling tower.
- The remote hydraulic coolers in the Woodyard area will be changed from water to air cooled systems.
- Control valves and programming will be installed to maximize preferential use of whitewater from the No. 3 Paper Machine vacuum sump tank to prevent overflows to the sewer.

B. Equipment List for the Process

3.1.1 Additional Emission Units

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
LK1A	No. 1 Lime Kiln	40 CFR 63 Subpart A 40 CFR 63 Subpart MM 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 391-3-1-.02(2)(gg)	LK1B LK1C	No. 1 Lime Kiln Venturi Scrubber No. 1 Lime Kiln Dust Bin (Cyclone)
LK2A	No. 2 Lime Kiln	40 CFR 52.21 40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S 40 CFR 63 Subpart MM 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 391-3-1-.02(2)(gg)	LK2B LK2C	No. 2 Lime Kiln Venturi Scrubber No. 2 Lime Kiln Dust Bin (Cyclone)
LS1A	No. 1 Lime Silo	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	LS1B	No. 1 Lime Silo Baghouse
LS3A	No. 3 Lime Silo	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	LS3B	No. 3 Lime Silo Baghouse
SS2A	No. 2 Starch Silo	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SS2B	No. 2 Starch Silo Baghouse
SS3A	No. 3 Starch Silo	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SS3B	No. 3 Starch Silo Baghouse
SLK1A	No. 1 Slaker	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	None	None
SLK2A	No. 2 Slaker	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	None	None
SBV2	No. 2 Starch Bin Vent	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SB2A	No. 2 Starch Bin Vent Baghouse
SBV3	No. 3 Starch Bin Vent	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SB3A	No. 3 Starch Bin Vent Baghouse
RB3A	No. 3 Recovery Boiler	40 CFR 52.21 40 CFR 60 Subpart A 40 CFR 60 Subpart Db 40 CFR 60 Subpart BBa 40 CFR 63 Subpart A 40 CFR 63 Subpart MM 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g)	RB3B	No. 3 Recovery Boiler Electrostatic Precipitator

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Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
ST3A	No. 3 Smelt 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)	ST3B	No. 3 Smelt Tank Wet Scrubber
PB1A	No. 1 Power Boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 61 Subpart A 40 CFR 61 Subpart E 40 CFR 63 Subpart A 40 CFR 63 Subpart S 40 CFR 63 Subpart DDDDD 40 CFR Part 64 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 391-3-1-.02(2)(gg)	PB1B PB1C	No. 1 Power Boiler Dual Venturi Scrubbers (North and South)
PB2A	No. 2 Power Boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart BB 40 CFR 63 Subpart A 40 CFR 63 Subpart S 40 CFR 63 Subpart DDDDD 40 CFR Part 64 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 391-3-1-.02(2)(gg)	None	None
PB3A	No. 3 Power Boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart Db 40 CFR 61 Subpart A 40 CFR 61 Subpart E 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 40 CFR Part 64 391-3-1-.02(2)(a)3(i) 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	PB3B	No. 3 Power Boiler Electrostatic Precipitator
RLYA	Riley Auxiliary Boiler	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
BP2A	No. 2 Bleach Plant	40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(a)3(ii)	BP2B	No. 2 Bleach Plant Packed Tower Scrubber
B03A	No. 3 Bleach Plant	40 CFR 63 Subpart A 40 CFR 63 Subpart S 391-3-1-.02(2)(a)3(ii)	BP3B	No. 3 Bleach Plant Packed Tower Scrubber
R10A	Chlorine Dioxide Generator	391-3-1-.02(2)(a)3(ii)	R10B R2AB	Chlorine Dioxide Generator Packed Tower Scrubbers

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Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
LVHC	<u>LVHC Gas Control System</u> No. 2 Digester System; No. 3 Digester System; No. 2 Evaporator System; No. 3 Evaporator System; No. 2 Evaporator Hotwell; No. 2 Digester Area Foul Condensate Collection Tanks; Main Foul Condensate Tank	40 CFR 52.21 40 CFR 63 Subpart A 40 CFR 63 Subpart S (all sources) 40 CFR 60 Subpart A 40 CFR 60 Subpart BB (Nos. 2 and 3 Digesters) 40 CFR 60 Subpart A 40 CFR 60 Subpart BBa (No. 3 Evaporator and No. 3 Digester System) 391-3-1-.02(2)(gg) (No. 2 Evaporator System; No. 2 Evaporator Hotwell)	LK2A PB1A PB2A WLSA WLSB	No. 2 Lime Kiln No. 1 Power Boiler No. 2 Power Boiler White Liquor Scrubbers
HVLC1	<u>HVLC Gas Control System (Innovations)</u> No. 2 A/B Filtrate Tank; Nos. 1, 2 and 3 Weak Black Liquor Process Vessels	391-3-1-.02(2)(a)3	LK2A	No. 2 Lime Kiln
HVLC2	<u>HVLC Gas Control System Dilute Pulping Process NCG and TRS System</u> No. 2 Digester Chip Bin; No. 3 Digester Chip Bin; No. 2 Digester Blow Tank; No. 3 Digester Blow Tank; BLOX Tank	40 CFR 52.21	LK2A PB1A PB2A	No. 2 Lime Kiln No. 1 Power Boiler No. 2 Power Boiler
PPCC	Pulping Process Condensate Collection System	40 CFR 63 Subpart A 40 CFR 63 Subpart S	CP03	Wastewater Treatment Pond No. 3
COAL	NSPS Subpart Y Regulation Coal System (including 1 main truck/rail car unloading system, 1 main storage (4 silos), 1 coal crusher, and the handling and transport system)	40 CFR 60 Subpart A 40 CFR 60 Subpart Y 391-3-1-.02(2)(n)	None	None
WOOD	Wood Chip, Bark, and Log Storage and Handling	391-3-1-.02(2)(n)	None	None
WWTP	Wastewater Treatment Plant and Associated Sludge Plant, Wastewater Handling, and Landfill Activities	None	None	None
PAPR	Paperboard Machines	None	None	None
HDST	High Density Unbleached Pulp Process Vessels	None	None	None
CAUS	Causticizing Operations (Except Kilns)	None	None	None
BSW2	No. 2 Line Brownstock Washers	40 CFR 60 Subpart A 40 CFR 60 Subpart BBa 40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii)	None	None
BSW3	No. 3 Line Brownstock Washers	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii)	None	None

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Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
BC03	Brownstock Washer Consistency Chest	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii)	None	None
ESC3	No. 3 Evaporator Surface Condenser	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii) 391-3-1-.03(10)(d)1(iii)	PPCC CP03	Pulping Process Condensate Collection System Wastewater Treatment Pond No.3
BLCC	Black Liquor Concentrator Condenser	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii) 391-3-1-.03(10)(d)1(iii)	PPCC CP03	Pulping Process Condensate Collection System Wastewater Treatment Pond No.3
BL01	No. 2 Weak Black Liquor Process Vessel	391-3-1-.02(2)(a)3	HVLC1	HVLC Gas Control System (Innovations)
BL03	No. 1 Weak Black Liquor Process Vessel	391-3-1-.02(2)(a)3	HVLC1	HVLC Gas Control System (Innovations)
BL07	No. 3 Weak Black Liquor Process Vessel	391-3-1-.02(2)(a)3	HVLC1	HVLC Gas Control System (Innovations)
BL04	No. 4 Weak Black Liquor Process Vessel	None	None	None
BL20	East Weak Black Liquor Process Vessel	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii)	None	None
BL21	West Weak Black Liquor Process Vessel	40 CFR 63 Subpart A 40 CFR 63.99(a)(11)(ii)	None	None
APRX	Air Products Oxidation/Polisher (APROX) Flash Tank	391-3-1-.02(2)(a)3	HVLC2	HVLC Gas Control System Dilute Pulping Process NCG and TRS System
2ABF	No. 2 A/B Filtrate Tank	391-3-1-.02(2)(a)3	HVLC1	HVLC Gas Control System (Innovations)
LK1D	No. 1 Lime Kiln Auxiliary Drive	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
LK2D	No. 1 Lime Kiln Auxiliary Drive	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
RB3D	MACT ZZZZ& NSPS IIII New Emergency engines (No. 3 Recovery Boiler Sump Pump)	40 CFR 60 Subpart A 40 CFR 60 Subpart IIII 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ	None	None
FWP1 FWP2	MACT ZZZZ Existing Emergency Engines (Nos. 1 and 2 Auxiliary Fire Pumps)	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.

C. Equipment & Rule Applicability

Emission and Operating Caps –

No emission and/or operation caps were added, removed, or modified as a result of this proposed modification.

Applicable Rules and Regulations -

Rules and regulations associated with modification will be discussed only. For a detail of rules and regulations applicable to this facility, please see the narrative associated with Title V Permit Number 2631-245-0006-V-05-0.

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 Graphic Packaging International, LLC – Augusta Mill 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)]. Graphic Packaging International, LLC – Augusta Mill has equipment located at this facility subject to 40 CFR 60.

40 CFR 60 NSPS Subpart BBa – Standards of Performance for Kraft Pulp Mill Affected Sources for which Construction, Reconstruction, or Modification Commenced after May 23, 2013

This regulation specifies filterable PM and TRS emissions standards for various pulp mill equipment including digester systems, brown stock washer systems, multiple-effect evaporator systems, recovery furnaces, smelt dissolving tanks, lime kilns, and condensate stripper systems for which construction, reconstruction, or modification commenced after May 23, 2013. The regulation identifies emissions limitations and/or control requirements, monitoring, recordkeeping, and reporting requirements. According to Application Number 753079, the No. 3 Recovery Boiler (Emissions Unit RB3A) and the No. 3 Evaporator System (part of Emissions Unit LVHC) are currently subject to Subpart BBa and will continue to comply with all the applicable requirements. The No. 3 Digester System (part of Emissions Unit LVHC) and the No. 2 Brownstock Washer System will both become subject to Subpart BBa as part of this proposed modification.

According to Application Number 753079, the installment of the turbo chip meter on the No. 3 Digester will increase the capacity of the digester as it will eliminate the chip meter as the bottleneck. As a result, the No. 3 Digester will experience an increase in short-term throughput and a related increase in short-term emission rates. Therefore, it will be considered a modified unit under the NSPS per 40 CFR 60.14 due to the proposed project. Gases from the No. 3 Digester are currently routed to the low volume, high concentration (LVHC) system and are combusted in either the No. 2 Lime Kiln (which is subject to 40 CFR Part 60, Subpart BB), the No. 1 Power Boiler, or the No. 2 Power Boiler as required by 40 CFR Part 63, Subpart S. Pursuant to 40 CFR 60.283a(1)(i) and (iv), the Subpart BBa TRS emissions limit for a digester system does not apply when the gases from that digester system are collected in an LVHC or high volume, low concentration (HVLC) closed-vent system meeting the requirements of 40 CFR 63.450 and combusted in either a lime kiln subject to the provisions of 40 CFR Part 60, Subpart BB or BBa or in an incinerator or other device and are subjected to a minimum temperature of 650°C for at least 0.5 second. The facility will continue to collect gases from the No. 3 Digester and combust them in either the No. 2 Lime Kiln, the No. 1 Power Boiler, or the No. 2 Power Boiler, thereby satisfying the requirements of Subpart BBa.

The new DD Washer on the No. 2 Fiberline will cause the No. 2 Brownstock Washer System to be subject to Subpart BBa since it is a new emissions unit. Pursuant to 40 CFR 60.283a(1)(iv), in lieu of meeting the Subpart BBa TRS emissions limit and/or gas collection and combustion requirements, a facility can demonstrate that incinerating the exhaust gases from a new, modified, or reconstructed brown stock washer system is technologically or economically unfeasible. Gases from the existing No. 2 Brownstock Washer System (Emissions Unit BSW2) are not currently collected and combusted in the Mill's HVLC or LVHC systems, as noted in Permit Condition 3.3.13. Therefore, substantial capital expenditure would be required to install equipment necessary to collect gases from the No. 2 Brownstock Washer System and control them in the Mill's HVLC or LVHC systems. The facility has determined that the total capital investment for a system to collect and control emissions from the new No. 2 Brownstock Washer System would equal \$3,632,870. Based on the capacity of the new DD Washer and the sum of the median NCASI emissions factors for individual TRS compounds, the potential uncontrolled emissions rate of the No. 2 Brownstock Washer system post-project is 8.67 tons/year. Assuming 98% TRS removal efficiency for collecting and controlling gases from the No. 2 Brownstock Washer System, the cost of the system would be \$57,461 per ton of TRS removed as determined using the U.S. EPA Control Cost Manual. The facility considers collecting and controlling gases from the No. 2 Brownstock Washer System to be economically unfeasible. Therefore, no emissions limits or monitoring requirements of Subpart BBa will be applicable to the new DD Washer. Detailed control cost calculations are provided in Appendix F of the narrative associated with Application Number 753079.

*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. Graphic Packaging International, LLC – Augusta Mill is a major source of HAPs under this regulation and equipment located at the Graphic Packaging International, LLC – Augusta Mill site are subject to a specified standard under this regulation.

40 CFR 63, NESHAP Subpart S – NESHAP for the Pulp and Paper Industry

This regulation applies to all HAP emissions points in the pulping or bleaching systems at the Mill. Numerous emissions units across the Mill are currently subject to Subpart S and will continue to be subject to Subpart S following the project. Subpart S regulates emissions from knoter and screen systems, pulp washing systems, decker systems, and oxygen delignification systems and collection of pulping process condensates from digester systems, turpentine recovery systems, evaporator systems, and HVLC and LVHC collection systems. LVHC and HVLC gases are controlled by the No. 2 Lime Kiln, the No. 1 Power Boiler, or the No. 2 Power Boiler. Pulping process condensates are collected from the Nos. 2 and 3 Digester Systems, Turpentine Recovery System, and the Nos. 1, 2, and 3 Evaporator Systems and conveyed via a hardpipe to Pond 3 (ID CP03) for biological treatment. Pursuant to 40 CFR 63.446(c)(3), 40 CFR 63.457(g), and Permit Condition 3.3.20.a, the facility is required to collect 11.1 pounds of HAP as methanol per ton of oven-dried pulp (lb HAP as methanol/ton ODP) in pulping process condensates. Pursuant to 40 CFR 63.446(e)(2) and (5) and Permit Condition 3.3.23.a, the facility is required to remove at least 10.2 lb HAP/ton ODP from the pulping process condensates in Pond 3. For biological treatment systems complying with 40 CFR 63.446(e)(2), per 40 CFR 63.457(g), the facility must measure total HAP as acetaldehyde, methanol, methyl ethyl ketone, and propionaldehyde.

The Mill implemented the Innovations Project (MACT I, Phase 2 Equivalency by Permit) rather than collecting and controlling gases from the Nos. 2 and 3 Brownstock Washer Systems (see Permit Condition 3.3.13). The emissions from the No. 2 and 3 Brownstock Washers were offset by other emissions reduction projects, including control of HVLC gases from the No. 2 A/B Filtrate Tank and the Nos. 1, 2, and 3 Weak Black Liquor Process Vessels, removal of Weak Black Liquor Ponds Nos. 1 and 2 from service and subsequent installation of West and East Weak Black Liquor Process Vessels, and collection and treatment of additional condensates from the No. 3 Evaporator Surface Condenser and Black Liquor Concentration Condenser Condensates. Pursuant to Permit Conditions 3.3.20.b and 3.3.23.c, the facility is required to collect an additional 1.5 lb/ton of ODP from these sources and demonstrate a minimum 0.027 lb HAP/ton ODP improved treatment.

With this project, the No. 2 Brownstock Washer, currently a vacuum-drum style washer, is being replaced with a more efficient and lower emitting Displacement Drum Washer. The calculations that the original Innovations evaluation were based on used a site-specific emissions factor of 0.0923 lbs of methanol per air-dried ton of pulp (lb/ADTP) for No. 2 Brownstock Washer. NCASI Technical Bulletin 1050 and 678 list an emissions factor of 0.069 lb/ADTP for “Mill O” pressure drum washer on softwood, which is similar to the Displacement Drum Washer proposed for the Augusta Mill. As such, the Mill anticipates that the replacement of the No. 2 Brownstock Washer with the new Displacement Drum Washer will result in a decrease in the emissions to be offset by the Innovations project. The facility proposes to perform emissions testing for methanol on the Drum Displacement Washer once it is started up and to re-evaluate the Innovations project emissions accounting to determine whether the additional pulping process condensate collection and treatment requirements for the Innovations project could be lessened and/or refined.

As discussed above, the facility plans to install a knots separator following the knotter and a screens separator following the screens on the No. 3 Fiberline. The existing secondary vibratory knotters, knots tank, and knot drainer will be removed from service. As the existing knotter and proposed knots separator on the No. 3 Fiberline is downstream of the brownstock washer, they are considered part of the “screen system” as defined at 40 CFR 63.441 as “equipment in which oversized particles are removed from the pulp slurry prior to the bleaching or papermaking system washed stock storage” rather than a “knotter system,” which is defined as being “after the digester system and prior to the pulp washing system.” Subpart S does not require control of HAP emissions from screen systems with emissions of 0.2 lb HAP/ton ODP. The Augusta Mill’s knotters and screen systems are currently exempt from control requirements and are vented to atmosphere. The facility plans to conduct testing following completion of the project to confirm that emissions from the knotter and screen system on the No. 3 Fiberline remain below 0.2 lb HAP/ton ODP.

40 CFR 63, NESHAP Subpart DDDDD – NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

This regulation specifies emissions limits and work practice standards, testing and fuel analyses requirements, and monitoring, recordkeeping, notification, and reporting requirements that potentially apply to boilers and process heaters located at major sources of HAP. The No. 1 Power Boiler (Emissions Unit PB1A), the No. 2 Power Boiler (Emissions Unit PB2A), the No. 3 Power Boiler (Emissions Unit PB3A), and the Riley Auxiliary Boiler (Emissions Unit RLYA, currently idled) are currently subject to Boiler MACT. The proposed project will not affect the applicability of Boiler MACT to these emissions units, and Nos. 1-3 Power Boiler will continue to comply with the applicable requirements of Boiler MACT following the project. With this application, the facility is requesting to remove coal as a permitted fuel for the No. 1 Power Boiler. This change will not affect the No. 1 Power Boiler’s category under Boiler MACT or any of the applicable emissions limits. With this change, no coal will be fired onsite.

This regulation was revised on October 6, 2022, including updates to the hydrogen chloride (HCl) and mercury (Hg) emissions limits that Nos. 1 and 3 Power Boiler are subject to. The updated emissions limits do not take effect until October 6, 2025, which is within the life of the current permit. The facility proposed to incorporate the updated emissions limits into the permit with an effective date of October 6, 2025. However, in an email dated October 26, 2023 from Lizzie Smith, Managing Consultant of All4, the facility would like to incorporate the updates to the 40 CFR 63, Subpart DDDDD conditions during the next Title V renewal rather than as part of this modification after further discussion. According to the October 26, 2023 email, the next renewal application will be due prior to the compliance date of the updated emissions limits of 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. The new No. 1 Slaker will be subject to this requirement.

Georgia Rule 391-3-1-.02(2)(e) – Emission Limitations and Standards – Particulate Emission from Manufacturing Processes

Georgia Rule 391-3-1-.02(2)(e)1(i) limits a source of particulate emissions that 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. The new No. 1 Slaker will be subject to this requirement.

Georgia Rule 391-3-1-.02(2)(gg) – Kraft Pulp Mills

This regulation specifies TRS emissions limitations for recovery furnaces, digester systems, multiple-effect evaporator systems, smelt dissolving tanks, and lime kilns in operation or under construction contract on or before September 24, 1976. This regulation is applicable to the facility.

Georgia Air Toxics Guidelines Assessment

According to the State's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant (TAP) Emissions (Revised March 2017)*, existing facilities that require a State Implementation Plan (SIP) permit that are either adding new equipment or modifying existing equipment that results in an increase in the emission of specified toxic air pollutants must demonstrate compliance with the Allowable Ambient Concentration (AAC) for each air toxic. If the facility-wide annual emission rate of a given toxic air pollutant (TAP) is less than the Minimum Emission Rate (MER) no further analysis is required. However, if the facility-wide emission rate exceeds the MER, the facility must show that the resulting maximum ground-level concentration (MGLC) determined by air dispersion analysis does not exceed the ACC of the TAP in question.

The facility submitted as part of Application Number 753079 a toxic impact assessment (TIA) which was reviewed by the Division's Data Management Unit (DMU). For a detailed discussion of the facility's TIA, see Section 6.0, Appendix B, and Appendix G of the narrative of Application Number 753079. The results of DMU's review are presented in its November 29, 2023 report. The results of the DMU review are summarized in the tables below.

Table 1. TAP MGLC Assessment

TAP	Averaging Period	AAC ($\mu\text{g}/\text{m}^3$)	Max Modeled Conc. ($\mu\text{g}/\text{m}^3$)	Receptor UTM Zone: 17	
				Easting (meter)	Northing (meter)
Acetaldehyde	Annual	4.55	1.458324	*	*
	15-minute	4,500	58.23231	*	*
Acetophenone	24-hour	117	2.053492	*	*
Acrolein	Annual	0.35	0.033399	*	*
	15-minute	23	1.3355	*	*
Benzene	Annual	0.13	0.003924	*	*
	15-minute	1,600	0.19165	*	*
1,3-Butadiene	Annual	0.03	0.001611	*	*
	15-minute	1,100	0.1202231	*	*
Carbon Tetrachloride	Annual	0.667	0.129143	*	*
	15-minute	15,670	24.623871	*	*
Chloroform	Annual	0.435	0.084402	*	*
	15-minute	24,000	5.62963	*	*
Cresol	24-hour	52.4	3.030389	*	*
	15-minute	2,000	29.94752	*	*
Dichloroethane	Annual	0.385	0.026518	*	*
	15-minute	40,500	4.82492	*	*

TAP	Averaging Period	AAC ($\mu\text{g}/\text{m}^3$)	Max Modeled Conc. ($\mu\text{g}/\text{m}^3$)	Receptor UTM Zone: 17	
				Easting (meter)	Northing (meter)
Formaldehyde	Annual	1.10	0.194383	*	*
	15-minute	245	13.3561	*	*
Hydrogen Sulfide	Annual	2.00	11.58234	411,566.88**	3,688,082.87**
	15-minute	2,479	544.397696	*	*
Methyl Alcohol	Annual	20,000	122.479645	*	*
	15-minute	32,800	4,679.33	*	*
Methyl Mercaptan	24-hour	2.40	6.24644	411,566.88**	3,688,082.87**
	15-minute	2,000	42.8986	*	*
Phenol	24-hour	45.2	4.055588	*	*
	15-minute	6,000	34.1364	*	*
Propionaldehyde	Annual	8.00	0.137241	*	*
1,2,4-Trichlorobenzene	24-hour	52.0	0.964153	*	*
	15-minute	4,000	16.314222	*	*

* No location information is available because the applicant derived MGLC values as a sum of all domain-wide maximum concentrations by individual sources (i.e., “screening analysis”).

** TAPs that exceeded their AACs in their screening analysis were modeled to estimate concentrations at receptor locations explicitly.

Table 2. TAP Risk Assessment Residential Area Analysis

TAP	Averaging Period	AAC ($\mu\text{g}/\text{m}^3$)	Modeled Conc. ($\mu\text{g}/\text{m}^3$)	Receptor UTM Zone: 17		Receptor ID
				Easting (meter)	Northing (meter)	
Hydrogen Sulfide	Annual	2.00	0.51222	411,348.61	3,686,365.08	R1
			0.96991	410,419.78	3,688,703.13	R2
			0.49229	411,418.41	3,686,312.28	R3
			0.46935	411,508.15	3,686,260.63	R4
			0.44805	411,595.49	3,686,212.04	R5
			0.44439	411,708.00	3,686,180.00	R6
			0.68534	411,043.00	3,686,945.00	R7

Table 3. TAP Risk Assessment Business Area Analysis

TAP	Averaging Period	AAC ($\mu\text{g}/\text{m}^3$)	Modeled Conc. ($\mu\text{g}/\text{m}^3$)	Receptor UTM Zone: <u>17</u>		Receptor ID
				Easting (meter)	Northing (meter)	
Hydrogen Sulfide	8-hour	139.3906*	14.4075	411,262.53	3,686,395.88	B1
			16.4642	411,213.15	3,689,171.61	B2
			41.8565	410,691.90	3,688,409.90	B3
			41.9162	410,993.86	3,688,563.40	B4
			36.8515	410,845.03	3,688,485.55	B5
			28.2689	410,851.39	3,688,832.38	B6
			34.3116	410,921.11	3,688,702.45	B7
			27.1202	411,118.00	3,687,360.00	B8
			14.9255	411,805.00	3,686,429.00	B9
			15.3814	411,984.00	3,686,343.00	B10
Methyl Mercaptan	24-hour	2.40	0.7168	411,262.53	3,686,395.88	B1
			0.6988	411,213.15	3,689,171.61	B2
			1.0749	410,691.90	3,688,409.90	B3
			1.6509	410,993.86	3,688,563.40	B4
			1.3862	410,845.03	3,688,485.55	B5
			0.9747	410,851.39	3,688,832.38	B6
			1.1565	410,921.11	3,688,702.45	B7
			1.4770	411,118.00	3,687,360.00	B8
			0.6057	411,805.00	3,686,429.00	B9
			0.5287	411,984.00	3,686,343.00	B10

* The 8-hour AAC for hydrogen sulfide that was derived from 10 ppm (OSHA Annotated Table Z-2). The alternative value is derived as follows:

$(10 \text{ ppm}) \times (34.081/24.45) / (100) \times 1000 = 139.3906 \mu\text{g}/\text{m}^3$ where 34.081 is the molecular weight for hydrogen sulfide in g/Mol, 24.45 is the molar volume at 25°C and 760 mmHg, and 100 is a safety factor for non-carcinogens.

D. Permit Conditions

Table 3.1 was updated to reflect changes discussed above.

Permit Condition Number 3.3.7 limits the sulfur content of the coal fired in the Nos. 1 and 2 Power Boilers under Avoidance of PSD. This condition is being removed since coal is no longer fired in the Nos. 1 and 2 Power Boilers.

Permit Condition Number 3.3.12 specifies the manner in which LVHC Gas System gases are to be processed. Permit Condition 3.3.12.a specifies the manner for processing gases from Nos. 2 and 3 Digestors of the LVHC Emission Group under 40 CFR 60 Subpart BB. This condition was modified to remove the reference to the No. 3 Digester as it is now subject to 40 CFR 60 Subpart BBa. Permit Condition 3.3.12.c specifies the manner for processing gases from the No. 3 Evaporator System under 40 CFR 60 Subpart BBa. This condition was modified add the No. 3 Digester and applicable requirements since it is now subject to 40 CFR 60 Subpart BBa.

Permit Condition Number 3.3.25 specified the opacity limit for the Coal System under 40 CFR 60 Subpart Y and Georgia Rule 391-3-1-.02(2)(n). This condition is being removed since this source no longer exists.

Permit Condition Number 3.3.38 is the general applicability condition for 40 CFR 60 Subparts A and BB for the No. 2 Lime Kiln, the No. 3 Recovery Boiler, the No. 3 Smelt Tank, and the NSPS Subpart BB Regulated Pulping Process LVHC NCG System. This condition is being modified to remove reference to the No. 3 Digester since it will no longer be subject to Subpart BB.

Permit Condition Number 3.3.39 is the general applicability condition for 40 CFR 60 Subparts A and Y for the Coal System. This condition is being removed since this source no longer exists.

Permit Condition No. 3.3.46 specifies the general applicability for 40 CFR 60 Subparts A and BBa for the No. 3 Recovery Boiler and the No. 3 Evaporator. This condition is being modified to add the No. 2 Brownstock Washer System and the No. 3 Digester since they are subject to 40 CFR 60 Subpart BBa.

Permit Condition Number 3.4.17 requires the facility to take all reasonable precautions to prevent fugitive dust emissions from the Coal System and Wood Chip, Bark, and Log Storage and Handling under Georgia Rule 391-3-1-.02(2)(n). This condition is being modified to remove refence to the Coal System since this source no longer exists.

Permit Condition No. 3.4.18 specifies the opacity limit for the Coal System and Wood Chip, Bark and Log Storage and Handling under Georgia Rule 391-3-1-.02(2)(n). This condition is being modified to remove refence to the Coal System since this source no longer exists.

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

No testing requirements were removed as a result of this permit modification.

Proposed testing will be done to demonstrate compliance with applicable requirements of 40 CFR 63, Subpart S. As discussed above, the facility plans to conduct performance testing on the new Displacement Drum washer for methanol emissions in order to re-evaluate the Innovations project emissions accounting. According to an email dated February 29, 2024 from Ms. Kim Lute, Managing Consultant of *ALL4*, the washer separates black liquor from pulp. Pulp is sent to the stock chests, and filtrates from the washer are either sent to the evaporators to increase the solids content prior to burning the black liquor or a small portion are sent back to the digesters to improve cooking performance. The evaporators would strip gases from the black liquor for treatment in the NCG system. Therefore, the testing for MACT I, Phase 2 is sufficient because the filtrate stream is not going to the wastewater. Permit Condition 4.2.23 was added to address such testing.

The facility also plans to conduct performance testing on the new knots separator and screens separator on the No. 3 Fiberline to verify that the total emissions from the screen system remain below 0.2 lb HAP/ton ODP. Permit Condition 4.2.10 specifies the periodic performance testing requirements for all emission sources subject to 40 CFR 63.443, 40 CFR 63.444, and 40 CFR 63.445. This condition was modified to address the planned performance testing for the new knots separator and screens separator of the No. 3 Fiberline.

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

No monitoring requirements were added or modified as a result of this permit modification.

Permit Condition No. 5.2.10 specified the sampling and analysis requirements for each shipment of coal. This condition is being removed since firing of coal is being removed with this modification.

VII. Other Record Keeping and Reporting Requirements

Permit Condition 6.1.7.c.xv defined an excursion for the fuel sulfur content of any coal fired in the No. 1 Power Boiler for avoidance of 40 CFR 52.21. This condition is being removed as part of this modification as it is no longer applicable.

Permit Condition 6.1.7.d i. required the facility to submit results of the coal analyses to provide a reasonable assurance of compliance with the fuel sulfur content limit in Georgia Rule 391-3-1-.02(2)(g) and for avoidance of 40 CFR 52.21. This condition is being removed as part of this modification as it is no longer applicable.

Permit Condition No. 6.2.18 specifies the recordkeeping requirements for suppressing fugitive dust from the Coal System and Wood Chip, Bark, and Log Storage and Handling to provide a reasonable assurance of compliance with the requirements in Georgia Rule 391-3-1-.02(2)(n). This condition is being modified to remove reference to the Coal System since this source no longer exists.

New Permit Conditions 6.2.57 through 6.2.61 were added as part of this permit modification. These conditions outline the records that the facility is required to maintain under 40 CFR 52.21(r)(6) and Georgia Rule 391-3-1-.02(7)(b)15 for the project discussed above. This includes any calculations used in order to verify that the project did not trigger PSD applicability.

VIII. Specific Requirements

Discuss any of the following specific requirements as they apply to the modification.

A. Operational Flexibility

No operational flexibility is not requested as part of this permit modification.

B. Alternative Requirements

No alternative requirements were added, modified, or removed as a result of this permit modification.

C. Insignificant Activities

Attachment B, Generic Emission Groups was modified to remove “Truck/Rail Car Unloading – Coal,” “Coal Storage and Handling System”, and “Coal Pulverizers (Ball Crushers).” Since the coal system no longer exists.

D. Temporary Sources

No temporary sources were added, modified, or removed as a result of this permit modification.

E. Short-Term Activities

No short-term were added, modified, or removed as a result of this permit modification.

F. Compliance Schedule/Progress Reports

No compliance schedule/progress reports were added, modified, or removed as a result of this permit modification.

G. Emissions Trading

No emissions trading was added, modified, or removed as a result of this permit modification.

H. Acid Rain Requirements/CAIR/CSPAR

This permit modification does not change the applicability of Acid Rain Requirements/CAIR/CSAR to this facility.

I. Prevention of Accidental Releases

No prevention of accidental releases was added, modified, or removed as a result of this permit modification.

J. Stratospheric Ozone Protection Requirements

This permit modification does not change the applicability of Stratospheric Ozone Protection Requirements to this facility.

K. Pollution Prevention

No prevention of pollution prevention was added, modified, or removed as a result of this permit modification.

L. Specific Conditions

No prevention of specific conditions were added, modified, or removed as a result of this permit modification.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//