Part 70 Operating Permit Amendment

Permit Amendment No.: 2631-021-0001-V-03-2 Effective Date: October 4, 2011

Facility Name: **Graphic Packaging Macon Mill**

Facility Address: 100 Graphic Packaging International Way
Macon, Georgia 31206 (Bibb County)

Mailing Address: 100 Graphic Packaging International Way
Macon, Georgia 31206

Parent/Holding Company: Graphic Packaging International, Inc.

Facility AIRS Number: 04-13-021-00001

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction and operating permit for:

> No. 3 Biomass Boiler (B005) with associated ancillary equipment. Restriction of No. 2 Power Boiler to fire only natural gas upon commencing shakedown of No. 3 Biomass Boiler. Permanent shutdown of No. 1 Power Boiler upon normal operation of No. 3 Biomass Boiler.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit Amendment and Permit No. 2631-021-0001-V-03-0. Unless modified or revoked, this Permit Amendment expires upon issuance of the next Part 70 Permit for this source.

This Permit Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 20207 dated January 28, 2011, February 28, 2011, and updated August 10, 2011; any other applications upon which this Permit Amendment or Permit No. 2631-021-0001-V-03-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **23** pages which pages are a part of this Permit Amendment, and which hereby become part of Permit No. 2631-021-0001-V-03-0.

[Signed]

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

The project will include the following:

- Install a new bubbling fluidized bed (BFB) boiler (No. 3 Biomass Boiler), rated at approximately 620 MMBtu/hr to be equipped with flue gas recirculation, a baghouse, and a selective non-catalytic (SNCR) reduction system and potentially an acid gas control system (some type of sorbent injection). The No. 3 Biomass Boiler will combust biomass, natural gas, and mill wastewater treatment plant (WWTP) sludge.
- Shutdown existing No. 1 Power Boiler which combusts coal, fuel oil, and natural gas. Permanent shutdown of No. 1 Power Boiler will occur upon normal operation of No. 3 Biomass Boiler. As part of the No. 3 Biomass Boiler construction process, coal and fuel oil firing capability will be removed form the No. 1 Power Boiler prior to its complete shutdown. Once the No. 1 Power Boiler is only firing natural gas the scrubber associated with this boiler will no longer be in operation.
- Coal and fuel oil will no longer be used as fuel in the No. 2 Power Boiler with natural gas combustion capability being retained. Once the No. 2 Power Boiler is only firing natural gas the scrubber associated with this boiler will no longer be in operation. This will occur following the necessary shake-down period for the No. 3 Biomass Boiler.
- Existing biomass fuel storage and handling system will be supplemented with new conveyors to transport biomass to the No. 3 Biomass Boiler. This is treated as an insignificant activity.
- The existing bark hog tower and hammer hog and truck dump will experience throughput increases to accommodate the proposed boiler. New potential emission estimates make these units significant emission units.
- A new sand silo with fabric filtration system and associated conveyors will be installed to accommodate the BFB sand bed. This is treated as an insignificant activity.
- A new fly ash handling system and ash storage silo with fabric filtration system will be constructed to accommodate the fly ash captured by the new baghouse associated with the No. 3 Biomass Boiler. This is treated as an insignificant activity.
- New bottom ash and boiler hopper ash handling equipment will be installed to remove and store the bottom ash generated by the No. 3 Biomass Boiler. This is treated as an insignificant activity.
- Sorbent handling system and storage silo equipped with a fabric filtration system may be required. This is treated as an insignificant activity.
- A new aqueous ammonia day tank to store ammonia for usage in the SNCR. This is treated as an insignificant activity.
- New steam turbine generator rated at 40 MW. This is treated as an insignificant activity.
- New cooling tower and generator lube oil and hydraulic oil process tanks to support the new steam turbine. This is treated as an insignificant activity.
- Increase in truck traffic on paved roads.
- Reduction in actual throughput to the existing coal storage system (emission unit B004) because of the reduced coal demand due to the shutdown of the No. 1 Power Boiler and removal of coal combustion from No. 2 Power Boiler.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional/Modified Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
B001	No. 1 Power Boiler	391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.4.5, .3.4.6, 3.4.7, 4.2.1, 4.2.2, 5.2.2, 5.2.3, 6.1.7, 6.2.2, 6.2.5, 6.2.8, 6.2.29, 6.2.31, 7.14.1, 7.14.3	B01S	No. 1 Power Boiler Scrubber
B002	No. 2 Power Boiler	391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.4.5, .3.4.6, 3.4.7, 4.2.1, 4.2.2, 5.2.2, 5.2.3, 6.1.7, 6.2.2, 6.2.5, 6.2.8, 6.2.29, 6.2.31, 7.14.1	B02S	No. 2 Power Boiler Scrubber
B005	No. 3 Biomass Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR Part 52.21 40 CFR Part 60 Subpart Db 40 CFR Part 61 Subpart E 40 CFR Part 63 Subpart DDDDD	3.2.1. 3.3.23, 3.3.28, 3.3.30 through 3.3.36, 3.4.14, 4.1.3, 4.2.1, 4.2.2, 4.2.7 through 4.2.12, 5.2.1, 5.2.2, 5.2.3, 5.2.9, 5.2.10, 6.1.7, 6.2.28 through 6.2.47, 7.14.2, 7.14.3, 7.14.4	B05B B05N B05D	No. 3 Biomass Boiler Baghouse No. 3 Biomass Boiler SNCR Duct Sorbent Injection
Z901	Unpaved and Paved Mill Roads	391-3-1-.02(2)(n)	6.2.14	None	None
A911	Bark Hog Tower and Hammer Hog	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.15, 3.4.16	None	None

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

3.2 Equipment Emission Caps and Operating Limits

NEW

3.2.1 The Permittee shall not supply more than 219,000 MW-hours of its electric output to any utility power distribution system for sale during any consecutive 12-month period. [Avoidance of 40 CFR 72.6(b)(4)]

3.3 Equipment Federal Rule Standards

MODIFIED

3.3.23 The Permittee shall be subject to all applicable provisions of Federal Standard CFR 61 Subpart A – *"General Provisions"* for the No. 2 and **No. 3 Biomass Boilers** (Source Codes: B003 **and B005**) while combusting mill sludge. [40 CFR 61 Subpart A]

MODIFIED

3.3.28 The Permittee shall be subject to all applicable provisions of Federal Standard 40 CFR 60 Subpart Db – *"Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units"* for the No. 3 Recovery Boiler (Source Code: D001) **and the No. 3 Biomass Boiler (Source Code: B005)**.
[40 CFR 60 Subpart Db]

NEW

3.3.30 The Permittee shall be subject to all applicable provisions of Federal Standard 40 CFR 61 Subpart E – *"National Emission Standards for Hazardous Air Pollutants for Mercury"* for the No. 2 and No. 3 Biomass Boilers (Source Codes: B003 and B005) while combusting mill sludge.
[40 CFR 61 Subpart E]

NEW

3.3.31 The Permittee shall be subject to all applicable provisions of Federal Standard 40 CFR 63 Subpart DDDDD – *"National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and institutional Boilers and Process Heaters"* for the No. 3 Biomass Boiler (Source Code: B005) by the applicable compliance date.
[40 CFR 63 Subpart DDDDD]

No. 3 Biomass Boiler (Source Code: B005) – ALL NEW CONDITIONS BELOW

3.3.32 The Permittee shall fire only natural gas, mill sludge, clean cellulosic biomass, and/or cellulosic biomass (virgin wood) in the No. 3 Biomass Boiler. This unit is not intended to be classified as an Industrial Solid Waste Incineration unit and will not burn solid waste as defined under 40 CFR 241.

Clean cellulosic biomass means those residuals that are akin to traditional cellulosic biomass such as forest-derived biomass (e.g., green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, and tree harvesting residuals from logging and sawmill materials), corn stover and other biomass crops used specifically for energy production (e.g., energy cane, other fast growing grasses), bagasse and other crop residues (e.g., peanut shells), wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, clean biomass from land clearing operations, and clean construction and demolition wood. These fuels are not secondary materials or solid wastes unless discarded. Clean biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials.
[40 CFR 52.21; Definition from 40 CFR 241.2, Avoidance of 40 CFR 60 Subpart CCCC]

3.3.33 The Permittee shall not discharge or cause the discharge into the atmosphere from the No. 3 Biomass Boiler any gases that contain:

a. Nitrogen oxides (NO_X) in excess of 404.6 tons during any consecutive 12-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[Avoidance of $PM_{2.5}$ Nonattainment New Source Review]

b. Sulfuric acid mist (SAM) in excess of 13.2 tons during any consecutive 12-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[Avoidance of 40 CFR 52.21]

c. Filterable particulate matter (PM) in excess of 0.030 lb/MMBtu. This limit applies during all times of operation, except during periods of startup, shutdown, and malfunction.
[40 CFR 60.43b(g), 40 CFR 60.43b(h)(1); 391-3-1-.02(2)(d)2.(iii) subsumed]

d. Fine Particulate matter ($PM_{2.5}$) in excess of 0.040 lb/MMBtu. This limit applies during all times of operation, except during periods of startup, shutdown, and malfunction.
[Avoidance of $PM_{2.5}$ Nonattainment New Source Review]

e. Particulate matter less than 10 micrometers in diameter (PM_{10}) in excess of 0.049 lb/MMBtu. This limit applies during all times of operation, except during periods of startup, shutdown, and malfunction.
[Avoidance of 40 CFR 52.21]

f. Opacity of which is equal to or greater than 20% opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity. This opacity standard applies during all times of operation, except during periods of startup, shutdown, and malfunction.
[40 CFR 60.43b(f), 40 CFR 60.43b(g), and 391-3-1-.02(2)(d)3.]

g. Carbon monoxide (CO) in excess of 0.15 lb/MMBtu on a 30-day rolling average, excluding periods of startup, shutdown, and malfunction.
[40 CFR 52.21 BACT Limit]

h. CO in excess of 407.3 tons during any consecutive 12-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21 BACT Limit]

i. Hydrogen Chloride (HCl) emissions in excess of 9.9 tons during consecutive 12-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[Avoidance of 112(g) case-by-case- MACT]

j. Any single hazardous air pollutant (HAP) which is listed in Section 112 of the Clean Air Act in an amount equal to or exceeding 10 tons during any consecutive twelve months, or any combination of such listed pollutants in an amount equal to or exceeding 25 tons during any twelve consecutive months.
[Avoidance of 112(g) case-by-case- MACT]

k. Mercury in excess of 7.1 pounds per 24-hour period while burning mill sludge.
[40 CFR 61.52(b)]

NOTE: Except where the applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this Permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.3.34 The Permittee shall limit the annual capacity factor for fossil fuel fired in the No. 3 Biomass Boiler to 10% or less. For purposes of this condition, annual capacity factor is the ratio between the actual heat input to a steam generating unit from fossil fuel during a calendar year and the potential heat input to the boiler had it been operated 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
[40 CFR 60.41b and 40 CFR 60.44b(c)]

3.3.35 The Permittee shall not exceed 249 MMBtu/hr heat input from natural gas firing on the No. 3 Biomass Boiler.
[Avoidance of 40 CFR 60 Subpart Da; Avoidance of NOx limit in Rule 391-3-1-.02(2)(d)4.]

3.3.36 The Permittee shall not combust natural gas with mill sludge unless the mill sludge is co-fired with biomass as defined in Condition 3.3.32.
[40 CFR 60.42b(k)(2)]

3.4 Equipment SIP Rule Standards

No. 3 Biomass Boiler (Source Code: B005) - **NEW**

3.4.14 The Permittee shall not burn fuel containing more than 3 percent sulfur, by weight, in the No. 3 Biomass Boiler.
[391-3-1-.02(2)(g)2.]

Bark Hog Tower and Hammer Hog (Source Code: A911) - **NEW**

3.4.15 The Permittee shall not cause, let, suffer, permit, or allow emissions from the Bark Hog Tower and Hammer Hog, the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1.]

3.4.16 The Permittee shall not cause, let, permit, suffer or allow the rate of emission from the Bark Hog Tower and Hammer Hog, particulate matter in total quantities equal to or exceeding the allowable rates calculated using the following equations:
[391-3-1-.02(2)(e)1.(i)

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

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

where:
E = total particulate matter emission rate in pounds per hour; and
P = dry process input weight rate in tons per hour.

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

MODIFIED

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 which pertain to the emission units listed in Section 3.1 are as follows:

Test Methods for Application No. 20207 dated January 28, 2011 and subsequent updates

z. Method 19, when applicable, to convert emissions concentrations to pollutant emission rates (i.e., lb/MMBtu).

aa. Methods 5, 201A, and/or or M202 shall be used for measurement of filterable PM, $PM_{10,}$ or $PM_{2.5}$ emissions.

bb. Method 26 or 26A shall be used for the determination of the concentration of hydrogen chloride emissions.

cc. Method 8 shall be used for the determination of the concentration of total sulfuric acid mist emissions. Or, alternatively, EPA Conditional Test Methods 13, 13A, or 13B may be used.

dd. ASTM E871 or E870 shall be used for the determination of biomass moisture content.

ee. ASTM E711 shall be used for the determination of the heat content of biomass.

ff. ASTM E775 shall be used for the determination of the sulfur content of biomass.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.
[391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

MODIFIED

4.2.1 The Permittee shall perform performance tests for the following specified equipment and pollutants:
[391-3-1-.02(6)(b)1]

Equipment	Pollutants
Nos. 1 and 2 Power Boilers	Particulate Matter (PM)
No. 2 Biomass Boiler	Particulate Matter (PM) Nitrogen Oxides (NO_X)
No. 3 Recovery Boiler	Particulate Matter (PM) Nitrogen Oxides (NO_X) Total Reduced Sulfur (TRS) Sulfur Dioxide (SO_2)
No. 3 Smelt Dissolving Tank	Particulate Matter (PM) Total Reduced Sulfur
Nos. 1 and 2 Lime Kilns	Particulate Matter (PM) Sulfur Dioxide (SO_2) Nitrogen Oxides (NO_X) Total Reduced Sulfur (TRS)
No. 3 Biomass Boiler	**Filterable Particulate Matter (PM)** **PM less than 10 micrometers (PM_{10})** **Fine Particulate Matter ($PM_{2.5}$)**

MODFIED

4.2.2 The Permittee shall conduct performance tests as specified by the following table and criteria unless otherwise specified by the Division:
[391-3-1-.02(2)(a)(10)]

Equipment	Pollutants
Nos. 1 and 2 Power Boilers	PM - biennial
No. 2 Biomass Boiler	PM – annual NOx – annual
No. 3 Recovery Boiler	PM - annual TRS – biennial NOx – biennial SO_2 - annual
No. 3 Smelt Dissolving Tank	PM - annual TRS - biennial
Nos. 1 and 2 Lime Kilns	PM - annual SO_2 – annual NO_x – semi-annual TRS – biennial
No. 3 Biomass Boiler	**Filterable PM - annual** **PM_{10} – annual** **$PM_{2.5}$ – annual**

a. If, in any 12-month testing period, the Permittee does not utilize the Nos. 1 or 2 Lime Kilns to combust NCGs in excess of eighteen calendar days, then the sulfur dioxide emission test required by this Permit shall not be conducted during that year. If the Nos. 1 or 2 Lime Kilns are utilized to combust NCGs in excess of eighteen calendar days, then the sulfur dioxide performance test shall be conducted while burning the LVHC/NCG/methanol streams in the lime kiln being tested. The Permittee shall certify in writing that no tests were required for a particular year by January 30 of the following year if this exemption is claimed.

b. Where the results of a performance test which is required semi-annually or annually are less than or equal to 50 percent of the allowable limit, the Permittee may skip the next scheduled performance test;

c. Where the results of a performance test which is required annually are greater than 85 percent of the allowable limit, the Permittee shall begin testing on a semiannual basis with the next performance test due approximately six months following that test. If any subsequent test is less than or equal to 85 percent of the allowable limit, the Permittee shall resume annual testing. The provisions of Condition 4.2.2.b do not apply until the results of two consecutive tests are less than or equal to 85 percent of the allowable limit.

d. Where the results of a performance test which is required biennially are greater than 85 percent of the allowable limit, the Permittee shall begin testing on an annual basis with the next performance test due approximately twelve months following that test. If any subsequent test is less than or equal to 85 percent of the allowable limit, the Permittee shall resume biennial testing.

e. Data from these tests shall be used to establish the operational parameters as specified in Condition 6.1.7.c. Data from a previously approved performance test which demonstrated compliance with the applicable emission limit may be used to establish the operational parameters in lieu of the most recent performance tests as long as that previous performance test is representative of current operations of the emission unit and was conducted during the five years prior to the most recent performance test or the life of this Permit, whichever is shorter.

f. The Permittee shall submit a list of all the current operational parameters established in accordance with this condition for the purpose of reporting under Condition 6.1.7.c with the quarterly report required by Condition 6.1.4.

g. If, in any calendar year, coal is fired in the No. 2 Biomass Boiler for less than 400 hours, the Permittee shall conduct an annual performance test for nitrogen oxides while burning coal. Should the firing rate of coal exceed 400 hours during any calendar year, then the Permittee must conduct an additional performance test for nitrogen oxides while burning coal within 90 days of exceeding 400 hours, as well as the annual test required by Condition 4.2.1.

No. 3 Biomass Boiler (Source Code: B005) - ALL NEW CONDITIONS BELOW

4.2.7 Within 90 days after startup of the No. 3 Biomass Boiler, the Permittee shall conduct a sludge test using Method 105 of appendix B of Part 61 and the procedures specified in 40 CFR 61.54 to determine the mercury content of the sludge.
[40 CFR 61.54(a)(2) and 391-3-1-.03(2)(c)]

4.2.8 Within 60 days after achieving the maximum production rate at which the No. 3 Biomass Boiler will be operated, but no later than 180 days after the initial startup, the Permittee shall conduct performance testing for Filterable PM using the test methods specified in Condition 4.1.3 to verify compliance with Condition 3.3.33.c and furnish to the Division a written report of the results of the performance test.
[40 CFR 60.46b(d) and 391-3-1-.03(2)(c)]

4.2.9 Within 180 days of the initial startup of the No. 3 Biomass Boiler, the Permittee shall conduct an initial performance test for PM_{10} and $PM_{2.5}$ emissions, using the test methods specified in Condition 4.1.3 to verify the compliance with the emission limits in Condition 3.3.33.d and 3.3.33.e.
[Avoidance of 52.21 and $PM_{2.5}$ Nonattainment NSR, 391-3-1-.02(3), and 391-3-1-.03(2)(c)]

a. Data from these tests shall be used to establish the pressure drop range required by Condition 5.2.2.j. Data from a previously approved performance test which demonstrated compliance with the applicable emission limit may be used to establish the operational parameters in lieu of the most recent performance tests as long as such previous performance test is representative of current operations of the emission unit and was conducted during the five years prior to the most recent performance test.

b. The Permittee shall submit with the quarterly report required by Condition No. 6.1.4 a list of all the current operational parameters established in accordance with this condition for the purpose of reporting under Condition No. 6.1.7.c.

4.2.10 Within 180 days of the initial startup of the No. 3 Biomass Boiler, the Permittee shall conduct an initial performance test for the following pollutants using the test methods specified in Condition 4.1.3. Based on data collected through the performance testing, the Permittee shall use the results as an approved emission factor (in lbs/lb steam) for the calculation used to demonstrate compliance with the emission limits in Conditions 3.3.33.i and 3.3.33.b.

a. Hydrogen chloride (HCl) emissions
[Avoidance of 112(g) Case-by-Case MACT, 391-3-1-.02(3) and 391-3-1-.03(2)(c)]

b. Sulfuric acid mist (SAM) emissions
[Avoidance of 52.21, 391-3-1-.02(3) and 391-3-1-.03(2)(c)]

c. During the testing required by Conditions 4.2.10.a and 4.2.10.b, if the Permittee utilizes sorbent injection when establishing the approved emission factor needed to demonstrate compliance with the emission limits contained in Conditions 3.3.33.b and 3.3.33.i, the Permittee shall use data from the tests to establish the sorbent injection flowrate (and appropriate units of measure) required by Condition 5.2.3.m.

4.2.11 The Permittee shall use CO CEMS as the compliance determination method for the No. 3 Biomass Boiler as follows:
[40 CFR 52.21, 391-3-1-.02(3), and 391-3-1-.03(2)(c)]

a. For the initial compliance test, CO from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the CO emission standard under Condition 3.3.33.g. The 30-day average emission rate is calculated as the average of all valid hourly emissions data recorded by the monitoring system during the 30-day test period and shall exclude periods of startup, shutdown and malfunction.

b. Following the date on which the initial performance test is completed or is required to be completed in Condition 4.2.11.a, whichever date comes first, the Permittee shall determine compliance with the CO emission standard in Condition 3.3.33.g on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the valid hourly CO emission data for the preceding 30 steam generating unit operating days and shall exclude periods of startup, shutdown and malfunction.

4.2.12 Within 180 days after initial startup of the No. 3 Biomass Boiler, the Permittee shall conduct performance evaluations of the NO_X CEMS and COMS required by Condition 5.2.1.c.
[Avoidance of $PM_{2.5}$ Nonattainment NSR, 391-3-1-.02(3), and 391-3-1-.03(2)(c)]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.2 Specific Monitoring Requirements

MODIFIED

5.2.1 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated pollutants on the following equipment. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

No. 3 Biomass Boiler (Source Code: B005)

c. Continuous Opacity Monitoring System (COMS) for measuring opacity discharged to the atmosphere for the No. 3 Biomass Boiler.
[40 CFR 60.48b(a)]

d. Continuous Emissions Monitoring System (CEMS) for measuring NO_X concentration and diluent (O_2) discharged to the atmosphere from the No. 3 Biomass Boiler. The 1-hr average NO_X emission rates shall also be recorded in lb/MMBtu heat input.
[Avoidance of $PM_{2.5}$ Nonattainment NSR]

e. Continuous Emissions Monitoring System (CEMS) for measuring CO concentration and diluent (O_2) discharged to the atmosphere from the No. 3 Biomass Boiler. The 1-hr average CO emission rates shall also be recorded in lb/MMBtu heat input.
[40 CFR 52.21]

MODIFIED

5.2.2 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated parameters on the following equipment. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

j. Pressure drop across No. 3 Biomass Boiler baghouse (Source Code: B05B).
[Avoidance of 40 CFR 52.21]

k. Steam production rate of the No. 3 Biomass Boiler (Source Code: B005)
[391-3-1-.02(6)(b)1]

MODIFIED

5.2.3 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

No. 3 Biomass Boiler (Source Code: B005)

k. Fuel types and amounts (in appropriate units of measure) fired in the No. 3 Biomass Boiler. Data shall be recorded once per hour of operation.

l. Heat input from natural gas fired in the No. 3 Biomass Boiler. Data shall be recorded once per hour of operation.

m. If relied upon to establish emission factors per Condition 4.2.10, the feed rate of sorbent to the No. 3 Biomass Boiler. Data shall be recorded once per hour of operation.

NEW

5.2.9 Within 60 days of startup of the unit, the Permittee shall develop and implement a Preventive Maintenance Program for baghouse B05B to assure that the provisions of condition 8.17.1 are met. The program shall be subject to review and, if necessary to assure compliance, modification by the Division and shall include the pressure drop ranges that indicate proper operation for the baghouse. At a minimum, the following operation and maintenance checks shall be made on at least a weekly basis, and a record of the findings and corrective actions taken shall be kept in a maintenance log:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Record the pressure drop across the baghouse and ensure that it is within the appropriate range.

b. For baghouses equipped with compressed air cleaning systems, check the system for proper operation. This may include checking for low pressure, leaks, proper lubrication, and proper operation of timer and valves.

c. For baghouses equipped with reverse air cleaning systems, check the system for proper operation. This may include checking damper, bypass, and isolation valves for proper operation.

d. For baghouses equipped with shaker cleaning systems, check the system for proper operation. This may include checking shaker mechanism for loose or worn bearings, drive components, mounting; proper operation of outlet/isolation valves; proper lubrication.

e. Check dust collector hoppers and conveying systems for proper operation.

NEW

5.2.10 Once per week, or in accordance with the approved site-specific monitoring plan developed per Condition 6.2.30, the Permittee shall analyze a gross sample of the fuel to be combusted in the No. 3 Biomass Boiler for potential SO_2 emissions (in lb/MMBtu).
[40 CFR 60.49b(r)(2)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

MODIFIED

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

No. 3 Biomass Boiler (Source Code: B005)

**viii. Any 6-minute period (excluding periods of startup, shutdown, or malfunction) during which the average opacity measured and recorded in accordance with Condition 5.2.1.c exceeds 20%, except for 1 6-minute period per hours of not more than 27% from the No .3 Biomass Boiler.
[40 CFR 60.49b(h)(3) and 391-3-1-.02(2)(d)3.]**

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

No. 3 Biomass Boiler (Source Code: B005)

ix. Any period of operation during which any fuel that is fired in the No. 3 Biomass Boiler that does not meet the definition contained in Conditions 3.3.32 or 3.4.14.

**x. Any 12 consecutive month period during which the rolling sum of NOx emissions, as calculated by Condition 6.2.35, from the No. 3 Biomass Boiler exceed 404.6 tons.
[Avoidance of $PM_{2.5}$ Nonattainment NSR]**

**xi. Any 12 consecutive month period during which the rolling sum of sulfuric acid mist (SAM) emissions, as calculated by Condition 6.2.40, from the No. 3 Biomass Boiler exceed 13.2 tons.
[Avoidance of 40 CFR 52.21]**

**xii. Any 12 month consecutive month period during which the rolling sum of hydrogen chloride (HCl) emissions, as calculated by Condition 6.2.43, from the No. 3 Biomass Boiler exceeds 9.9 tons.
[Avoidance of 112(g) case-by-case- MACT]**

xiii. Any period of operation during which the amount of natural gas fired in the No. 3 Biomass Boiler, as measured by Condition 5.2.3.l, exceeds a heat input value of 249 MMBtu/hr.
[Avoidance of 40 CFR 60 Subpart Da]

xiv. Any time of process operation during which the mill wastewater sludge fired in the No. 3 Biomass Boiler contains mercury in excess of 7.1 lb per 24-hour period as determined by the sludge sampling in Condition 4.2.7.
[40 CFR 61.52(b) and 40 CFR 61.55(a)]

xv. Any 12-month rolling period during which the Permittee sells more than 219,000 MW-hours of its electric output to any utility power distribution system.
[Avoidance of 40 CFR 72.6(b)(4)]

xvi. Any twelve consecutive month period in which the rolling sum of any individual HAP or total HAP emissions from the No. 3 Biomass Boiler calculated in accordance with Condition 6.2.46 are in excess of the limit established by Condition 3.3.31.j.
[Avoidance of 112(g) case-by-case- MACT]

xvii. Any period of process operation of the No. 3 Biomass Boiler when natural gas is combusted with mill sludge alone.

xviii. Any 30-day rolling average CO emissions rate measured and recorded in accordance with Condition 5.2.1.c (excluding startup, shutdown, and malfunctions) which exceeds 0.15 lb/MMBtu from the No .3 Biomass Boiler.
[40 CFR 52.21]

xix. Any 12 consecutive month period during which the rolling sum of CO emissions, as measured and recorded in accordance with Condition 5.2.1.c and calculated by Condition 6.2.37, from the No. 3 Biomass Boiler exceed 407.3 tons.
[40 CFR 52.21]

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

No. 3 Biomass Boiler

xi. Any 3-hour period during which the pressure drop of Baghouse B05B exceeds the parameters established in accordance with Condition 4.2.9.

xii. Any 12 consecutive month period during which the annual capacity factor for fossil fuels fired in the No. 3 Biomass Boiler is greater than 10%. The annual capacity factor is determined on a twelve month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
[40 CFR 60.44b(c)]

xiii. Any weekly inspection of Baghouse B05B as required by Condition 5.2.9 revealing a problem that is not resolved in accordance with the Preventative Maintenance Program.

xiv. Any 3-hour block average of sorbent injection flow rate for each sorbent used measured using the device required by Condition 5.2.3.m that falls below 80% of the injection flow rate value established in accordance with the requirements of Condition 4.2.10.c, if sorbent is relied upon to establish the pollutant emission factors.

d. In addition to the excess emissions, exceedances and excursions specified above, the following should also be included with the report required in Condition 6.1.4:

vi. All fuel analysis reports created in accordance with Condition 6.2.30.

vii. The annual capacity factor for fossil fuel for the No. 3 Biomass Boiler for the past 12 consecutive months as recorded in Condition 6.2.32.

viii. A report of the 12-month rolling total for the electric output from the mill to any
utility power distribution system for sale, calculated in accordance with Condition 6.2.28, for each month in the reporting period.
[Avoidance of 40 CFR 72.6(b)(4)]

ix. For each month in the reporting period, each month's 12-month rolling total of NO_X, CO, SAM, HCl, and total HAP emissions as calculated in Conditions 6.2.35, 6.2.37, 6.2.40, 6.2.43, and 6.2.46.

6.2 Specific Record Keeping and Reporting Requirements

No. 3 Biomass Boiler (Source Code: B005) – ALL NEW CONDITIONS BELOW

6.2.28 The Permittee shall record and maintain monthly records of any utility power distribution sold in accordance with the limit in Condition 3.2.1. The facility shall use the records to calculate 12-month rolling totals of MW-hours of electrical output supplied to any utility power distribution sold from the facility.
[Avoidance of 40 CFR 72.6(b)(4)]

6.2.29 The facility shall have a 180 day "shakedown period" upon startup of the No. 3 Biomass Boiler during which the Nos. 1 and 2 Power Boilers (Source Codes: B001 and B002) shall only fire natural gas.
[40 CFR 52.21(b)(3)(viii) and Avoidance of Nonattainment NSR]

6.2.30 The Permittee shall develop and submit to the Division for review and approval a site-specific fuel analysis plan for the No. 3 Biomass Boiler no later than 60 days before the date to demonstrate compliance with 40 CFR 60.42b(k)(2) and 40 CFR 60.45b(k). Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:
[40 CFR 60.49b(r)(2)]

a. The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input:

b. The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas, a fuel receipt or tariff sheet is acceptable;

c. The ratio of different fuels in the mixture; and

d. The Permittee can petition the Division to approve monthly or quarterly sampling in place of weekly sampling.

6.2.31 The Permittee shall submit all notifications for the No. 3 Biomass Boiler, as provided by 40 CFR 60.7 and 40 CFR 61.09 by the dates specified, including:
[391-3-1-.02(6)(b)1]

a. Notification of the removal of No. 1 Power Boiler's ability to burn coal and fuel oil, within 60 days after such date.

b. Notification of the removal of No. 2 Power Boiler's ability to burn coal and fuel oil, within 60 days after such date.

c. Notification of the date No. 1 Power Boiler ceased operation and was permanently shutdown, within 60 days after such date.

d. The anticipated date of initial startup of the No. 3 Biomass Boiler not more than 60 days nor less than 30 days before that date.

e. The actual date of initial startup of the No. 3 Biomass Boiler postmarked within 15 days after such date.

f. The anticipated date of performance testing, including CEMS and COMS performance evaluations, at least 60 days before the performance test is scheduled to begin.

6.2.32 The Permittee shall record and maintain records of the amounts of fuel combusted during each day for the No. 3 Biomass Boiler and calculate the annual capacity factor for fossil fuel. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month in accordance with Condition 3.3.34.
[40 CFR 60.49b(d)]

6.2.33 If the sludge sampling required by Condition 4.2.7 exceeds 3.5 lb mercury per 24-hour period, the Permittee shall monitor mercury emissions at intervals of at least once per year by use of Method 105 of appendix B or the procedures specified in 40 CFR 61.53(d)(2) and (4). The results of monitoring shall be reported and retained according to 40 CFR 61.54(f) and (g).
[40 CFR 61.55(a)]

6.2.34 The Permittee shall verify that each supplier provides an annual certification that shipments of biomass fuel for combustion complies with the requirements of Condition 3.3.32.
[391-3-1-.02(6)(b)1]

Emissions Calculations

6.2.35 The Permittee shall use the NO_X emissions data measured and recorded in accordance with Condition 5.2.1.d and the fuel firing rates measured and recorded in accordance with Conditions 5.2.3.k in order to calculate monthly NO_X emissions. The monthly emissions shall be used to calculate the twelve-month rolling total NO_X emissions. The monthly and annual NO_X emission rates shall be expressed in terms of tons of pollutant per month or year. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions. Records of the calculations shall be maintained in a form suitable for inspection by, or submittal to, the Division. The Permittee shall include in the quarterly report required by Condition No. 6.1.4 a copy of the rolling twelve month total NO_X emissions for each twelve consecutive month period that ends during the reporting quarter.
[Avoidance of $PM_{2.5}$ Nonattainment NSR, 391-3-1-.02(6)(b)1]

6.2.36 The Permittee shall notify the Division in writing if emissions of NO_X exceed 33.7 tons from the No. 3 Biomass Boiler during any month and/or the emissions of NO_X exceed 404.6 tons from the No. 3 Biomass Boiler during any twelve consecutive months. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain future compliance with the emission limit in Condition No. 3.3.33.a.
[Avoidance of $PM_{2.5}$ Nonattainment NSR, 391-3-1-.02(6)(b)1]

6.2.37 The Permittee shall use the CO emissions data measured and recorded in accordance with Condition 5.2.1.e and the fuel firing rates measured and recorded in accordance with Conditions 5.2.3.k in order to calculate monthly CO emissions. The monthly emissions shall be used to calculate the twelve-month rolling total CO emissions. The monthly and annual CO emission rates shall be expressed in terms of tons of pollutant per month or year. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions. Records of the calculations shall be maintained in a form suitable for inspection by, or submittal to, the Division. The Permittee shall include in the quarterly report required by Condition No. 6.1.4 a copy of the rolling twelve month total CO emissions for each twelve consecutive month period that ends during the reporting quarter.
[40 CFR 52.21, 391-3-1-.02(6)(b)1]

6.2.38 The Permittee shall notify the Division in writing if emissions of CO exceed 33.9 tons from the No. 3 Biomass Boiler during any month and/or the emissions of CO exceed 407.3 tons from the No. 3 Biomass Boiler during any twelve consecutive months. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain future compliance with the emission limit in Condition No. 3.3.33.h.
[40 CFR 52.21, 391-3-1-.02(6)(b)1

6.2.39 The Permittee shall use the following equation to calculate the monthly sulfuric acid mist (SAM) emissions from the No. 3 Biomass Boiler.
[Avoidance of 40 CFR 52.21, 391-3-1-.02(6)(b)1]

SAM = (EF) (R) / (2000 lb/ton)

Where,

SAM = monthly SAM emissions from the boiler in tons per month

EF = tested emission factor in lb/lb steam from stack testing results in Condition 4.2.10.b and approved by the Division.

R = measured steam production (lb steam/month) for the boiler monitored and recorded per Condition 5.2.2.k.

6.2.40 The Permittee shall use the monthly calculations from Condition 6.2.39 to calculate the twelve-month rolling total SAM emissions. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions.
[Avoidance of 40 CFR 52.21, 391-3-1-.02(6)(b)1]

6.2.41 The Permittee shall notify the Division in writing if emissions of SAM exceed 1.1 tons from the No. 3 Biomass Boiler during any month and/or the emissions of SAM exceed 13.2 tons from the No. 3 Biomass Boiler during any twelve consecutive months. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain future compliance with the emission limit in Condition No. 3.3.31.b. All calculations should be kept as part of the monthly record. These records shall be kept available for inspection or submittal for five years from the date of record.
[Avoidance of 40 CFR 52.21, 391-3-1-.02(6)(b)1]

6.2.42 The Permittee shall use the following equation to calculate the monthly hydrogen chloride (HCl) emissions from the No. 3 Biomass Boiler.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

HCl = (EF) (R) / (2000 lb/ton)

Where,

HCl = monthly HCl emissions from the boiler in tons per month

EF = tested emission factor in lb/lb steam from stack testing results in Condition 4.2.10.a and approved by the Division.

R = measured steam production (lb steam/month) for the boiler monitored and recorded per Condition 5.2.2.k.

6.2.43 The Permittee shall use the monthly calculations from Condition 6.2.42 to calculate the twelve-month rolling total HCl emissions. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

6.2.44 The Permittee shall notify the Division in writing if emissions of HCl exceed 0.825 tons from the No. 3 Biomass Boiler during any month and/or the emissions of HCl exceed 9.9 tons from the No. 3 Biomass Boiler during any twelve consecutive months. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain future compliance with the emission limit in Condition No. 3.3.33.i. All calculations should be kept as part of the monthly record. These records shall be kept available for inspection or submittal for five years from the date of record.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

6.2.45 The Permittee shall use the following equations to calculate the monthly total HAP emissions from the No. 3 Biomass Boiler, excluding HCl emissions.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

$\Sigma HAP_i = (EF_{ib}) (R_b) / (2000 \text{ lb/ton}) + (EF_{ing}) (R_{ng}) / (2000 \text{ lb/ton})$

Where,

Σ = Sum of all HAP_i

HAP_i = monthly individual HAP emissions from the boiler in tons per month

EF_{ib} = biomass emission factor for HAP_i in lb/lb steam as approved by the Division in Appendix B of the Revised Permit Application No. 20207 (Volume I) dated August 2011.

R_b = measured steam production (lb steam/month) for the boiler – (R_{ng} * 1,024 MMBtu/MMscf heating value * 717 lb steam/MMBtu gas)

EF_{ing} = natural gas emission factor for HAP_i in lb/MMscf as approved by the Division in Appendix B of the Revised Permit Application No. 20207 (Volume I) dated August 2011.

R_{ng} = measured natural gas usage (MMscf/month) for the boiler

6.2.46 The Permittee shall use the monthly calculations from Condition 6.2.45 and the HCl emissions calculated in Condition 6.2.42 to calculate both individual (excluding HCl) and total HAP (including HCl) emitted each month. The Permittee shall use these monthly calculations to calculate the twelve-month rolling individual and total HAP emissions. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

6.2.47 The Permittee shall notify the Division in writing if emissions of total HAP (including HCl) exceed 2.08 tons from the No. 3 Biomass Boiler during any month and/or the emissions of total HAP exceed 25 tons from the No. 3 Biomass Boiler during any twelve consecutive months. The Permittee shall notify the Division in writing if and individual HAP (excluding HCl) exceed 0.833 tons from the No. 3 Biomass Boiler during any month and/or the emissions of the individual HAP exceed 10 tons from the No. 3 Biomass Boiler during any twelve consecutive months. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain future compliance with the emission limit in Condition No. 3.3.33.j. All calculations should be kept as part of the monthly record. These records shall be kept available for inspection or submittal for five years from the date of record.
[Avoidance of 112(g) case-by-case- MACT, 391-3-1-.02(6)(b)1]

PART 7.0 OTHER SPECIFIC REQUIREMENTS

7.14 Specific Conditions Associated with this Amendment

NEW

7.14.1 Once the Nos. 1 and 2 Power Boilers are capable of firing only natural gas as notified to the Division in Condition 6.2.31, the requirements of Conditions 4.2.1 and 4.2.2 (as they apply to the No.1 and 2 Power Boilers), 5.2.2.a, 5.2.3.b, 6.1.7.c.vi, and 6.2.2 shall become null and void and the operation of associated scrubbers (Source Code: B01S and B02S) will not be required.
[40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)(1)]

7.14.2 The new and modified Part 3.0 Conditions as listed below shall become effective immediately upon startup of the No. 3 Biomass Boiler as notified to the Division in Condition 6.2.31. All associated testing, monitoring, record keeping, and reporting requirements shall also become effective upon startup.
[40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)(1)]

a. Conditions 3.2.1, 3.3.23, 3.3.28, 3.3.30 through 3.3.36, 3.4.14 through 3.4.16

7.14.3 Once the No. 1 Power Boiler is permanently shutdown as notified to the Division in Condition 6.2.31, all associated emission limitations, testing, monitoring, record keeping, and reporting requirements shall become null and void. These conditions include, but are no limited to Conditions 3.4.5, 3.4.6, 3.4.7, 4.2.1, 4.2.2, 5.2.2, 5.2.3, 6.1.7, 6.2.2, 6.2.5, and 6.2.8.
[40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)(1)]

7.14.4 If, during the testing required by Condition 4.2.10, the Permittee determines that sorbent injection is not needed to demonstrate compliance with limits in Conditions 3.3.33.b and 3.3.33.i, then the requirements of Conditions 4.2.10.c, 5.2.3.m and 6.1.7.c.xiv shall be null and void.
[40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)(1)]

Attachments

A. List of Standard Abbreviations and List of Permit Specific Abbreviations
B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
C. List of References

ATTACHMENT A

List Of Standard Abbreviations

AIRS	Aerometric Information Retrieval System	PM	Particulate Matter
APCD	Air Pollution Control Device	PM_{10} (PM10)	Particulate Matter less than 10 micrometers in diameter
ASTM	American Society for Testing and Materials	PPM (ppm)	Parts per Million
BACT	Best Available Control Technology	PSD	Prevention of Significant Deterioration
BTU	British Thermal Unit	RACT	Reasonably Available Control Technology
CAAA	Clean Air Act Amendments	RMP	Risk Management Plan
CEMS	Continuous Emission Monitoring System	SIC	Standard Industrial Classification
CERMS	Continuous Emission Rate Monitoring System	SIP	State Implementation Plan
CFR	Code of Federal Regulations	SO_2 (SO2)	Sulfur Dioxide
CMS	Continuous Monitoring System(s)	USC	United States Code
CO	Carbon Monoxide	VE	Visible Emissions
COMS	Continuous Opacity Monitoring System	VOC	Volatile Organic Compound
dscf/dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter		
EPA	United States Environmental Protection Agency		
EPCRA	Emergency Planning and Community Right to Know Act		
gr	Grain(s)		
GPM (gpm)	Gallons per minute		
H_2O (H2O)	Water		
HAP	Hazardous Air Pollutant		
HCFC	Hydro-chloro-fluorocarbon		
MACT	Maximum Achievable Control Technology		
MMBtu	Million British Thermal Units		
MMBtu/hr	Million British Thermal Units per hour		
MVAC	Motor Vehicle Air Conditioner		
MW	Megawatt		
NESHAP	National Emission Standards for Hazardous Air Pollutants		
NO_x (NOx)	Nitrogen Oxides		
NSPS	New Source Performance Standards		
OCGA	Official Code of Georgia Annotated		

List of Permit Specific Abbreviations

GHG	Greenhouse Gases		
BFB	Bubbling Fluidized Bed		

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows: i) Less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste.	
	ii) Less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste.	
	iii) Less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	
	4. Stationary engines burning: i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators;	4
	ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year.	
	iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year.	
	iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	As needed
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	As needed
	2. Portable blast-cleaning equipment.	As needed
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	8
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	As needed
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	As needed

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	9
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act..	As needed
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	2
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour: i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	
	iii) Kilns for firing ceramic ware.	
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	
	v) Bakery ovens and confection cookers.	
	vi) Feed mill ovens.	
	vii) Surface coating drying ovens	
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	As needed
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	1
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	1
	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	3
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	3
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	3
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	Numerous
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	Numerous

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Aqueous Ammonia Day Tank (250 gallons) TK03	1
Bark Pile and Bark Dumping	2
Boiler Ash Pile Loading and Removal	1
Boiler Fly ash Silo	1
Boiler Bottom Ash and Boiler Hopper Ash Storage Bin	1
Boiler Bed Sand Silo	1
Boiler Sorbent Silo	1
Boilout Tank (205,800 gallons)	1
Chemicals Additives Tanks (<1,000 gallons)	7
Chemicals Additives Tanks (>10,000 gallons)	6
Chemicals Additives Tanks (1,000 – 2,000 gallons)	1
Chemicals Additives Tanks (2,000 – 4,000 gallons)	7
Chemicals Additives Tanks (4,000 - 10,000 gallons)	5
Chemi-Defoamer	1
Chip Storage	1
Chip Pile/Chip Truck Dump	1
Cooling Tower	7
Stacker/Reclaimer System	1
Dregs Washer and Filter	1
Effluent Defoamer	1
Fresh Lime Silo	1
Green Liquor Storage Tank (88,000 gallons)	1
Green Liquor Surge Tank (322,5000 gallons)	1

Lime Unloading from Railcars	1
Reburned Lime Silo	1
Reburned Lime Unloading and Conveying	1
Soda Ash Hoppers	2

ATTACHMENT B (continued)

GENERIC EMISSION GROUPS

Emission units/activities appearing in the following table are subject only to one or more of Georgia Rules 391-3-1-.02 (2) (b), (e) &/or (n). Potential emissions of particulate matter, from these sources based on TSP, are less than 25 tons per year per process line or unit in each group. Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Emissions Units / Activities	Number of Units (if appropriate)	Applicable Rules		
		Opacity Rule (b)	PM from Mfg Process Rule (e)	Fugitive Dust Rule (n)
Ash Storage Silo	1		X	X
Sand Storage Silo	1		X	X
Sorbent Storage Silo	1		X	X
Cooling Tower	1		X	X

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d).Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	0
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	0
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	0

ATTACHMENT C

LIST OF REFERENCES

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.

2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.

3. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.***

4. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees***.

5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/ap42/index.html*.

6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/software/tanks/index.html*.

7. The Clean Air Act (42 U.S.C. 7401 et seq).

8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).

9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).