Part 70 Operating Permit Amendment

Permit Amendment No.: **2631-127-0003-V-04-5** **Effective Date:**

Facility Name: **Brunswick Cellulose, Inc.**

Facility Address: 1400 West Ninth Street
Brunswick, Georgia 31521 Glynn County

Mailing Address: Post Office Box 1438
Brunswick, Georgia 31521

Parent/Holding Company: Koch Cellulose, Inc.

Facility AIRS Number: 04-13-127-00003

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 permit for:

> The modification of chlorine and chlorine dioxide emission limits for No. 1-3 Bleach Plants (Source Code: BG01) and the installation of a crystallizer to remove chloride and potassium from the No. 6 recovery furnace electrostatic precipitator ash, thereby reducing the number of water washes on the recovery furnaces and increasing overall mill uptime. This project also allows for increased utilization of the chemical recovery operations resulting from the recovery of filtrate from the mill's oxygen delignification system.

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. 2631-127-0003-V-04-0. 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 Nos. 16228 and 16315 dated May 20, 2005, and July 28, 2005, respectively; any other applications upon which this Permit Amendment or Permit No. 2631-127-0003-V-04-0 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 **5** pages, which pages are a part of this Permit Amendment, and which hereby become part of Permit No. 2631-127-0003-V-04-0.

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.1 Process Description of Modification

Application No. 16228 proposed the installation of a crystallizer to remove chloride and potassium from the No. 6 recovery furnace electrostatic precipitator ash. Both the No. 5 and No. 6 recovery furnaces operate electrostatic precipitators (ESPs) to control particulate matter emissions. The ash collected by the ESPs is mixed with black liquor prior to being burned in the furnace. This gives the furnace a second opportunity to recover the chemicals in the collected ash. This ash, however, has a high chloride concentration which results in a build-up of chlorides in the process loop. The removal of the chloride and potassium from the ESP ash will decrease the stickiness of the ash thereby decreasing the amount of ash that collects in the boiler tubes. The decrease in the ash collected in the boiler tubes will, therefore, reduce the number of water washes required on the recovery furnaces. With the decrease in downtime required for recovery furnace water washes, the overall mill uptime will increase. This project also allows for increased utilization of the chemical recovery operations resulting from the recovery of filtrate from the mill's oxygen delignification system.

Application No. 16315 proposed the modification of existing chlorine and chlorine dioxide emission limits for No. 1-3 Bleach Plants (Source Code: BG01). The previous emission limits were determined based on USEPA SCREEN3 toxics modeling. Additional modeling was conducted using the ISCST3 toxics model. The modeling of chlorine and chlorine dioxide at emission rates equal to the emission limits in this permit demonstrated ambient air concentrations below the corresponding allowable levels for both pollutants.

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.

3.2 Equipment Emission Caps and Operating Limits

3.2.12 **State Only Enforceable Condition.**
The Permittee shall not discharge or cause the discharge into the atmosphere from the combination of all of the sources listed below ("Source List") any gases which are in excess of that allowed by Georgia's Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions, as demonstrated by air dispersion modeling ("Limits").
[391-3-1-.02(2)(a)(10)]

Source List

Source Code	Source	Control System	Control ID
BG01	No. 1, 2 and 3 Bleach Plants, #42 & 43 washer hoods	No. 1 Bleach Plant Scrubber & No. 2 Bleach Plant Scrubber	BPS1 & BPS3
B250	SVP-LITE CLO_2 generator	SVP Lite Tail Gas Scrubber	BPS2
BG03	#22 & 23 washer hoods	uncontrolled	--

Limits

Source Code	Cl_2 Limit (lb/hour)	ClO_2 Limit (lb/hour)
BG01	6.50	6.19
B250	0.12	0.79
BG03	0.01	0.01

3.2.17 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from Power Boiler #4 (Source Code: U700), any gases which contain sulfur dioxide (SO_2) emissions in excess of 2,002 tons during any twelve consecutive month period.
[Avoidance of 40 CFR 52.21]

PART 5.0 REQUIREMENTS FOR EMISSION UNITS

5.2 Specific Monitoring Requirements

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.

e. Smelt Tanks #5 and #6 (Source Codes: R403 and R408)

iv. Weak Wash Makeup Flow Rate to the #5 Smelt Tank Scrubber (Source Code: RSS5).

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

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)

iii. Power Boilers (Source Codes: U700, U706, and U707)

(A) Any twelve consecutive month period during which sulfur dioxide (SO_2) emissions from Power Boiler #4 (Source Code: U700) exceed 2,002 tons. [Avoidance of 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)

v. No. 5 and No. 6 Smelt Tank (Source Codes R403 and R408)

(F) Any 3-hour average in which the Weak Water Makeup Flow Rate to the No. 5 Smelt Tank Scrubber (Source Code: RSS5) is less than 20 gpm.

6.2 Specific Record Keeping and Reporting Requirement

6.2.28 Using the fuel usage records required by Condition 6.2.3, the Permittee shall use fuel-specific and site-specific emission factors to calculate monthly sulfur dioxide emissions from Power Boiler #4 (Source Code: U700). All calculations used to determine the total must be kept as part of the record. The monthly emissions shall be used to calculate the twelve-month rolling total of sulfur dioxide emissions. Each month's twelve-month rolling total shall be the sum of the current month's emissions plus the previous eleven months' emissions. Any twelve-month rolling total that exceeds 2,002 tons sulfur dioxide per year must be reported per Condition 6.1.7.a.iii(F).
[Avoidance of 40 CFR 52.21]

Attachments

B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups

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 BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Crystallizer Saltcake Mix Tank	1
Chloride Crystallizer	1
Crystallizer Filtrate Tank	1