Brunswick Cellulose
No. 5 and No. 6 Recovery Furnaces (Source Codes: R401 and R407)

Emission Limits

→***No. 5 Recovery Furnace 3.2.11:*** The Permittee shall not burn more than 2,100,000 gallons of fuel oil per 12-consecutive month period in the No. 5 Recovery Furnace.
[40 CFR 52.21 Avoidance]

→***No. 6 Recovery Furnace 3.2.12d-e:*** The Permittee shall not discharge or cause the discharge into the atmosphere from the No. 6 Recovery Furnace, any gases which:

d. Contain sulfur dioxide (SO_2) in excess of 200 lbs/hr. [40 CFR 52.21 BACT Limit]

e. Contain SO_2 emissions in excess of 180 ppm by volume (corrected to 3% oxygen). [40 CFR 52.21 BACT Limit]

5.1 General Monitoring Requirements

5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

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)]

a. TRS and oxygen from the No. 5 Lime Kiln (Source Code: L537).
b. NOX from the Nos. 6 and 7 Power Boilers (Source Codes: U706 & U707).
c. No. 6 Recovery Furnace (Source Code: R407)
i. TRS and oxygen
ii. NO_X and CO.
[40 CFR 52.21 BACT]

d. Opacity from the Nos. 5 and 6 Recovery Furnaces and Nos. 4 and 6 Power Boilers (Source Codes: R401, R407, U700 and U706). The continuous opacity monitoring system (COMS) must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. The COMS data must be reduced as specified in 40 CFR 63.8(g)(2).
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), 40 CFR 60.48b(a), 40 CFR 60.248(a)(1), and 40 CFR 63.864(d)]

e. No. 5 Recovery Furnace (Source Code: R401)
i. TRS and oxygen
ii. NO_X and CO
[40 CFR 52.21 BACT]

f. NO_X and CO from the No. 4 Power Boiler (Source Code: U700)
[40 CFR 52.21 Avoidance]

g. TRS, NO_X, CO, and oxygen from the No. 6 Lime Kiln (Source Code: L560).
[40 CFR 52.21 and 40 CFR 60.284(a)(2)]

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)]

d. Nos. 5 and 6 Recovery Furnaces (Source Codes: R401 and R407)

i. Black Liquor/Auxiliary Fuel flow rates for the No. 5 Recovery Furnace. Black liquor firing rate shall be in units of tons/day or Mg/day. Data shall be recorded once per hour of boiler operation. [40 CFR 63.866(c)(1)]

ii. Black Liquor/Auxiliary Fuel flow rates for the No. 6 Recovery Furnace. Black liquor firing rate shall be in units of tons/day or Mg/day. Data shall be recorded once per hour of boiler operation. [40 CFR 63.866(c)(1)]

iii. Fuel oil usage in the No. 5 Recovery Furnace. Data shall be recorded monthly.

iv. Natural gas and No. 2 Fuel oil usage in the No. 6 Recovery Furnace. Data shall be recorded monthly.

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)(iii)]

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)

i. Nos. 5 and 6 Recovery Furnaces (Source Codes: R401 and R407)

(A) TRS Emissions from the No. 5 Recovery Boiler:

(I) Any 24-hour average greater than 20 ppm TRS on a dry basis, corrected to 8% oxygen.

(II) Any 12-hour average greater than 10 ppm TRS on a dry basis, corrected to 8% oxygen, after the modifications to the No. 5 Recovery Furnace as described by Application No. 16576 dated January 18, 2006.
[40 CFR 52.21 BACT]

(B) Any 12-hour average greater than 5 ppm TRS on a dry basis, corrected to 8% oxygen by volume from the No. 6 Recovery Furnace.

(C) Any 6-minute period for which the opacity from the No. 5 Recovery Furnace is greater than 40%.

(D) Any 6-minute period for which the opacity from the No. 6 Recovery Furnace is greater than 35%.
[40 CFR 60.284(d)(1)(ii)]

(E) Any 12-hour average greater than 100 ppm NO_x by volume corrected to 8% oxygen for No. 6 Recovery Furnace.
[40 CFR 52.21 BACT]

(F) Any 12-hour average greater than 100 ppm NO_x by volume corrected to 8% oxygen for the No. 5 Recovery Furnace, after the modifications to the No. 5 Recovery Furnace as described in Application 16576, dated January 18, 2006.
[40 CFR 52.21 BACT]

(G) Any 30-consecutive day average greater than 300 ppm CO by volume corrected to 8% oxygen for the No. 6 Recovery Furnace.
[40 CFR 52.21 BACT]

(H) Any 30-consecutive day average greater than 300 ppm CO by volume corrected to 8% oxygen for the No. 5 Recovery Furnace, after the modifications to the No. 5 Recovery Furnace as described in Application 16576, dated January 18, 2006.
[40 CFR 52.21 BACT]

(I) Any determination that the oil combusted in the No. 6 Recovery Furnace does not meet the definition of very low sulfur oil as defined under Condition 3.2.13.
[40 CFR 60.41b]

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)

iii. Nos. 5 and 6 Recovery Furnaces (Source Codes: R401 and R407)

(A) Any monthly determination in which the 12-consecutive month total of fuel oil combusted in the No. 6 Recovery Furnace exceeds 1,540,012 gallons.

(B) Any monthly determination in which the 12-consecutive month total of fuel oil combusted in the No. 5 Recovery Furnace exceeds 2,100,000 gallons.
[40 CFR 52.21 Avoidance]

(C) Any 12-hour average greater than 4 ppm H2S by volume corrected to 8% oxygen for the No. 5 Recovery Furnace as calculated per Condition 6.2.30, after the modifications to the No. 5 Recovery Furnace as described by Application No. 16576 dated January 18, 2006.
[40 CFR 52.21 BACT]

(D) Any 12-hour average greater than 4 ppm H2S by volume corrected to 8% oxygen for the No. 6 Recovery Furnace as calculated per Condition 6.2.30. [40 CFR 52.21 BACT]

(E) Any time of process operation during which the annual capacity factor for oil and gas fired in the No. 6 Recovery Furnace is greater than 10%. 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, as calculated per Condition 6.2.10.

iv. Periods of monitoring exceedances reported for Condition 6.1.7.b.iv shall be a violation of 40 CFR 63 Subpart MM if the total monitoring period (excluding periods of startup, shutdown, or malfunction) divided by the total period of operating time is in excess of 6% within any quarterly period [40 CFR 63.864(k)(2)(i)]

(A) Any quarterly period when the opacity reading is greater than 35% for 6% of more of the operating time for the No. 5 Recovery Furnace (Source Code: R401).

(B) Any quarterly period when the opacity reading is greater than 35% for 6% of more of the operating time for the No. 6 Recovery Furnace (Source Code: R407).

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)

6.2 Specific Record Keeping and Reporting Requirements

6.2.7 Using the fuel usage records required by Condition 6.2.4, the Permittee shall use fuel-specific and site-specific emission factors to calculate monthly SO_2 emissions from the No. 4 Power Boiler. All calculations used to determine the total must be kept as part of the record. The monthly emissions shall be used to calculate the 12-month rolling total of SO_2 emissions. Each month's 12-month rolling total shall be the sum of the current month's emissions plus the previous 11 months' emissions. Any 12-month rolling total that exceeds 568 tons SO_2 per year must be reported per Condition 6.1.7.a.iii(F).
[40 CFR 51.308 Regional Haze]

40 CFR 63 Subpart MM

6.2.20 The operating ranges for the monitoring parameters in Conditions 5.2.2.b through 5.2.2.d, 5.2.3.a, and 5.2.3.d using data collected during previous performance tests per Condition 4.2.3 must be submitted to the Division for approval. If the Permittee conducts additional performance tests per the requirements of 40 CFR 63.865 for the purposes of reestablishing the operating parameter ranges, the operating ranges must be submitted to the Division for approval within 60 days of the performance test. In the submittal, the Permittee must certify that no control techniques and processes have been modified subsequent to the testing upon which the data used to establish the operating parameter ranges were obtained.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

6.2.21 The Permittee shall notify the Division prior to any of the following:

a. The air pollution control system is modified or replaced for the following process units: No. 5 Recovery Furnace, No. 6 Recovery Furnace, No. 5 Smelt Dissolving Tank,

No. 6 Smelt Dissolving Tank, No. 5 Lime Kiln, or No. 6 Lime Kiln (Source Codes: R401, R407, R403, R408, L537, or L560).
[40 CFR 63.867(b)(3)(i)]

b. A change in a continuous monitoring parameter, the value of a continuous monitoring parameter, or the range of values for a continuous monitoring parameter for the following process units: No. 5 Recovery Furnace, No. 6 Recovery Furnace, No. 5 Smelt Dissolving Tank, No. 6 Smelt Dissolving Tank, No. 5 Lime Kiln, or No. 6 Lime Kiln (Source Codes: R401, R407, R403, R408, L537, or L560)
[40 CFR 63.867(b)(3)(iii)]

c. An increase in the daily black liquor solids firing rate for the No. 5 Recovery Furnace or No. 6 Recovery Furnace (Source Codes: R401 and R408) during any 24-hour averaging period by more than 10% above the level measured in the most recent performance test pursuant to 40 CFR 63 Subpart MM.
[40 CFR 63.867(b)(3)(iv)]

6.2.22 The Permittee shall implement the corrective action plan as developed in Condition 6.2.17 if any of the following monitoring exceedances occur: [40 CFR 63.864(k)(1)]

a. No. 5 Recovery Furnace (Source Code: R401) opacity greater than 20% for 10 consecutive 6-minute averages.
[40 CFR 63.864(k)(1)(i)]

b. No. 6 Recovery Furnace (Source Code: R407) opacity greater than 20% for 10 consecutive 6-minute averages. [40 CFR 63.864(k)(1)(i)]