Rayonier Performance Fibers, LLC
Fernandina Beach Mill

Facility ID No. 0890004
Nassau County

Title V Air Operation Permit Revision

Permit No. 0890004-037-AV
(Revision of Title V Air Operation Permit No. 0890004-029-AV)

Permitting and Compliance Authority:

Department of Environmental Protection
Air Resource Management, Northeast District
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Title V Air Operation Permit Revision
Permit No. 0890004-037-AV

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Permittee:
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PO Box 2002
Fernandina Beach, Florida 32035

Permit No.: 0890004-037-AV
Facility ID No.: 0890004
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V Air Operation Permit No. 0890004-029-AV to incorporate the terms and conditions of Permit No. 0890004-035-AC (revised by Permit No. 0890004-038-AC) which authorizes the permittee to relocate and operate temporary emergency generators for the production of electricity during power supply disruptions.

This permit revision also incorporates the terms and conditions of permit No. 0890004-018-AC, 0890004-021-AC, 0890004-023-AC, and 0890004-031-AC which authorized the increase in pulp production from 165,852 to 175,000 air-dried metric tons (ADMT) per consecutive 12 months.

The existing facility is located at the Foot of Gum Street in Nassau County, Fernandina Beach, Florida; UTM Coordinates: Zone 17, 454.7 km East and 3392.2 km North; Latitude: 30° 39′ 44″ North and Longitude: 81° 29′ 03″ West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: October 10, 2011
Revision Effective Date: XX, 2012
Renewal Application Due Date: May 22, 2015
Expiration Date: October 10, 2016

(Draft)

_____

Khalid Al-Nahdy, P.E.
District Air Program Administrator

Florida Department of Environmental Protection

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Subsection A. Facility Description

The mill uses a sulfite (ammonia-base) process to produce various grades of chemical cellulose from pine wood-chips. There are only two other pulp mills located in the United States that produce products similar to the Fernandina Mill and neither of these mills use the same type of manufacturing process. This plant produces approximately 10 different grades of cellulose each with different specifications and customers. The amount of each grade of product that is produced is based on market demand. The cellulose produced at this mill goes into such products as plastics, photographic film, LCD screens, paints, cigarette filters, pharmaceuticals, food products, cosmetics and textiles. Customers of these products have stringent quality requirements. The mill is permitted to produce 175,000 ADMT of pulp on a 12 month rolling total basis.

Subsection B. Summary of Emissions Units

E.U. ID No.	Brief Description
005	Vent Gas Scrubber and Direct Contact Condenser
006	Sulfite Recovery Boiler, red liquor solids and oil fired boiler
007	Molten sulfur handling area.
010	Biological Effluent Treatment System
011	Dissolving-Grade Bleaching System
021	Evaporator Vents Methanol Condenser
022	No. 6 Power Boiler
024	Temporary Emergency Generators

Unregulated Emissions Units and/or Activities: *Refer to Appendix U, List of Unregulated Emissions Units and/or Activities*

Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received March 22, 2012, this facility is a major source of hazardous air pollutants (HAP.) The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No (s).
40 CFR 60, Subpart A, NSPS General Provisions	022
40 CFR 60, Subpart D	022
40 CFR 63, Subpart A, NESHAP General Provisions	005, 010, 011, 021
40 CFR 61, Subpart A, NESHAP General Provisions	022
40 CFR 61, Subpart E	022
40 CFR 63, Subpart S	005, 010, 011, 021
40 CFR 63, Subpart MM	006
40 CFR 63, Subpart DDDDD	022
State Rule Citations 62-296.410, 62- 296.405, 62-296.410, 62-296.320, LRACT, Rule 62-212.400, F.A.C.)	005, 006, 022

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

FW2. Pulp Production Rate. The facility is permitted for a facility-wide pulp production rate of 175,000 ADMT per consecutive 12-months. Additional paper machine improvements are authorized, as outlined in the Compliance Plan for Pulp Production Increase, in order to achieve the 175,000 ADMT per year production rate. [Rules 62-4.070(3), 210.200(PTE) and 62-212.400(5), F.A.C., Construction Permit No. 0890004-018-AC, Construction Permit No. 0890004-021-AC, Construction Permit No. 0890004-031-AC, Appendix CP, Compliance Plan for Pulp Production Increase]

Emissions and Controls

FW3. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW4. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW5. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW6. Not federally Enforceable. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements:

FW6. Continued:

Emissions Point Vent Number	Emissions Point Name	Description & Control Measures
WY001	Chip pit blower	Fresh chips are pneumatically conveyed to a chip pile by a blower. Chipping technology minimizes the production of fines. Also chips are made from freshly cut pine trees having a moisture content of about 50%. This moisture aids in minimizing windborne particulate matter.
WY004	Chip pile	Chipping technology minimizes the production of fines. Chips are made from freshly cut pine trees having a moisture content of about 50%. This moisture and frequent rains minimize windborne particulate matter.
WY006	Bark pile	Bark has at least 50% moisture and is created in large pieces. Some of the bark must be hogged before burning. Therefore, little becomes airborne from the pile. Furthermore, frequent rains maintain the pile at sufficient moisture to suppress windborne particulate matter.

[Rule 62-296.320(4)(c), F.A.C.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW7. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW8. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW9. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW10. Prevention of Accidental Releases (Section 112(r) of CAA).

a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.

b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.

c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

d. Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to: Department of Community Affairs, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9921, Fax: (850) 488-1739.

e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.

g. Send the required annual registration fee using approved forms made payable to: Cashier, Department of Community Affairs, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

FW11. Startup, Shutdown, Malfunction Plan. The Permittee shall adopt and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction. The plan shall meet the requirements of 40 CFR 63.6(e)(3) including containing a program of corrective action for malfunctioning processes and the air pollution control and monitoring equipment used to comply with the relevant standards of 40 CFR Part 63. The current SSM Plan shall be maintained at the facility and be available for inspection and copying by the Administrator upon request. If the SSM Plan is subsequently revised pursuant to 40 CFR 63.6(e)(3)(viii), the Permittee shall maintain at the facility each previous (i.e., superseded) version of the SSM Plan, and shall make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. Any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by 40 CFR 63.6(e), shall not be deemed to constitute a Part 70 or 71 permit revision. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield.

FW12. Report of Actual Emissions. The permittee shall maintain and submit actual annual emissions for a period of 5 years following completion of each project phase authorized by Construction Permit No. 0890004-021-AC for the HCE Project. The permittee shall maintain and submit actual annual emissions for a period of 5 years following completion of the Sulfite Recovery boiler project as authorized by Construction permit 0890004-027-AC. The permittee shall maintain and submit actual annual emissions for a period of 5 years following completion of activities related to the increase of actual pulp production to 165, 852 ADMT per 12 month rolling total as authorized by Construction permit 0890004-031-AC. Emissions related to demand growth from these projects (contained in the three referenced construction permits) that could have been accommodated prior to the project must be shown and discussed. This requirement shall be fulfilled by submittal of a report to the Compliance Authority no later than March 1 for the preceding calendar year for each project and/or construction permit as appropriate. [Rule 62-4.070(3) and 62-212.400(5), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

FW13. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
005	Vent Gas Scrubber and Direct Contact Condenser

Emission Unit 005 identifies the Vent Gas Scrubber and Direct Contact Condenser which controls emissions from numerous vents from the cooking acid plant, the red stock washers, the unwashed stock tank, the spent sulfite liquor storage tanks, the spent sulfite liquor washer area, the digesters (6), and the blow pits. The scrubber is a packed bed containing 10 feet of packing consisting of two packed sections. The lower section is designed for sulfur dioxide emissions control via gas absorption using alkaline scrubbing media (soda ash, sodium hydroxide, etc.). The spent scrubber media is bled first to other closed sources to make maximum use of the alkali to remove sulfur dioxide, and then to sewer via closed piping to number 1 Pump Station. The sulfur dioxide concentration in the stack is continuously measured with a CMS.

The upper packed section of the vent gas scrubber is designed to condense methanol from the gas stream by direct contact with fresh well water, i.e. the Direct Contact Condenser. This is a once through process.

The condensed methanol held in the water is sent to the biological effluent treatment system for treatment in order to comply with the requirements of 40 CFR 63 Subpart S.

This emissions unit has a CMS required for compliance purposes therefore, it is exempt from CAM for SO_2 monitoring.

Essential Potential to Emit (PTE) Parameters

A.1. Hours of Operation. This emissions unit shall be allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: The attached Table 1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **A.2.-A.3**.are based on the specified averaging time of the applicable test method.

A.2. Sulfur Dioxide. Sulfur Dioxide (SO_2) emissions shall not exceed 250 ppm (28,350 ACFM, 130°F) as a 3-hour average. [Operation permit No. 0890004-004-AO; Construction Permit Nos. 0890004-002-AC and 0890004-010-AC]

A.3. Visible Emissions. Visible emissions (VE) shall be less than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.; Construction Permit No. 0890004-010-AC]

Test Methods and Procedures

{Permitting note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.4. Sulfur Dioxide. Compliance shall be determined with an in stack continuous monitoring system. In addition, compliance shall be determined by the permittee conducting a SO_2 emissions compliance test upon request by the Department in accordance with the requirements of Rule 62-297.310(7)(b), F.A.C. The test Method shall be EPA Method 8 incorporated and adopted by reference in Chapter 62-297, F.A.C. [OGC Case No. 90-1028, Consent Order dated 09-20-90, Operation permit No. 0890004-004-AO; Construction Permit Nos. 0890004-002-AC and 0890004-010-AC]

A.5. Visible Emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. [Construction Permit No. 0890004-010-AC]

A.6. Additional Compliance Test Requirements. This emissions unit is also subject to Common Conditions Subsection G **-** Opacity/Special Compliance Test.

A.7. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

A. 8. Sulfur Dioxide. A SO_2 continuous monitoring system (CMS) report shall be submitted for each calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

a. The magnitude of excess emissions, and the date and time of commencement and completion of each time period of excess emissions.

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunctions (if known), the corrective action taken or preventative measures adopted.

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

d. When no excess emissions have occurred or the CMS has not been inoperative, repaired or adjusted, such information shall be stated in the report.

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

[OGC Case No. 90-1028, Consent Order dated 09-20-90, Operation Permit 0890004-004-AO; Construction Permit No. 0890004-010-AC]

A.9. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

The specific conditions in this section apply to the following emissions unit:

Emissions Unit Number	Brief Description
006	Sulfite Recovery Boiler, red liquor solids and oil fired boiler.

Emission Unit 006 identifies the Recovery Boiler. Combustion gases from the boiler and non-condensable gases from the evaporators are controlled through a multi-stage wet scrubber that utilizes ammonium hydroxide as the scrubbing medium. This absorption process produces a fine, aerosol type particulate, which is subsequently controlled by a filter unit, the Brinks Demister. The Brinks Demister consists of four, enclosed rubber-lined metal compartments each containing 52 candles. Each candle is a 24-inch diameter, 12–feet high cylinder with 6 inches of tightly wound polyester fiber filter held within a concentric wire cage. Gases flow up through the center of each candle then pass through the 6 inches of filter medium, out an opening near the top of the compartment and on to the stack.

The sulfur dioxide concentration within the stack is measured continuously using a CMS, therefore this emissions unit is exempt from CAM.

The BetaGuard Particulate Monitor is the CMS utilized to demonstrate compliance with 40 CFR 63 Subpart MM.

{Permitting note(s): This emissions unit is subject to Rule 17-2.03, F.A.C., Latest Reasonable Available Control Technology (LRACT dated 07-12-76), which was based on Washington State Standards for Sulfite Pulp Mills (WAC 18-38-040). This rule became 17-2.630, F.A.C. which became Best Available Control Technology (BACT) now Rule 62-212.400(6), F.A.C. This emissions unit was issued Final Order dated June 19, 1991, which included Alternate Sampling Procedure No. ASP-91-H-01, which approved the continual operation of the Brinks Demister System in lieu of meeting the general visible emissions standard of less than 20% opacity as measured by EPA Method 9. This emissions unit is also regulated under NESHAP - 40 CFR 63, Subpart MM, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

Essential Potential to Emit (PTE) Parameters

B.1. Methods of Operation.

a. *Fuels*. This boiler shall be fired with the following fuels:

(1) No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% by weight (with or without any prior blending with facility-generated on-specification used oil). This fuel shall be fired as a startup, shutdown, and supplemental fuel (e.g. maintain the flame stability of the boiler), and

(2) On-specification used oil subject to the requirements of Subsection G of FINAL Title V Permit No. 0890004-037-AV limited amounts of facility-generated on-specification used oil may be blended and fired with the No. 6 fuel oil.

(3) Red Liquor Solids (Red liquor at approximately 60% RLS content and 10.59 lbs/gallon density)

B.1.a Continued:

(4) Virgin, Ultra Low Sulfur Distillate No. 2 fuel oil with a maximum sulfur content not to exceed 15 ppm (0.0015 percent by weight) prior to injection into the red liquor feed line, i.e. a ULSD/RLS blend.

[Rule 62-213.410, F.A.C.; Air Operation Permit 0890004-003-AO; Air Construction Permit Nos. 0890004-017-AC and 0890004-024-AC]

B.2. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C., Air Operation Permit 0890004-003-AO; Air Construction Permit Nos. 0890004-017-AC and 0890004-024-AC]

Permitted Capacity & Fuel Restrictions:

B.3. The following capacities and restrictions apply to this emissions unit:

a. Red Liquor Solids: The maximum operating capacity is 70,000 lb/hour of oven dry RLS, which is equivalent to a heat input rate of 653.1 MMBtu per hour based on a fuel heating value of 9,330 Btu/lb of RLS. This is also equivalent to approximately 11,015 gallons per hour (gph) of red liquor.[1]

b. ULSD/Red Liquor Solids Blend: The maximum permitted firing rate of the ULSD/Red Liquor Solids Blend shall not exceed 69,779 lbs/hr [69,563 lb RLS/hour + 216 lb ULSD/hour]. This is equivalent to a flow rate of no more than 10,976 gallons per hour of red liquor and USLD blended [10,946 gal RL/hr + 30 gal ULSD/hr][2,3]

c. Virgin ULSD: The maximum total addition rate of virgin ULSD into the red liquor feed line is 0.5 gallons per minute [based on a 24-hour average].

d. Fuel Oil: The total maximum oil firing rate shall not exceed 1,789 gallons of oil per hour, which is equivalent to a heat input rate of 268.4 MMBtu per our based on a fuel heating value of 150 MMBtu per 1,000 gallons of oil.

e. On-spec Used Oil: The on-specification used oil shall be blended with authorized oil prior to firing in this emissions unit.

[1] Assumes a density of 10.5916 lb/gallon of RLS, 60% solids content. [Red liquor entering the boiler is typically 58-60% solids content, although it can vary outside this range.]
[2] Assumes a heating value of 136,000 Btu/gallon and a density of 7.2 lb/gallon for ULSD.
[3] A reduction of 2 pounds of oven dry red liquor solids for each pound of virgin ULSD actually fired in the boiler (i.e. 2.3 gallons of RLS/gallon of virgin ULSD).

[Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE); 62-212.400(12)(c), F.A.C., FINAL Title V Permit No. 0890004-020-AV, Permit No. 0890004-024-AC]

B.4. On Spec Used Oil. This emissions unit is also subject to Common Conditions Subsection H. On-Spec Used Oil Requirements.

Emission Limitations and Standards

{Permitting note: The attached Table 1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **B.5.-B.7**.are based on the specified averaging time of the applicable test method.

B.5. PM Emissions. The owner or operator shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.092 g/dscm (0.040 gr/dscf) corrected to 8 percent oxygen. [40 CFR 63.862(a)(2); Air Construction permit 0890004-017-AC]

B.6. Sulfur Dioxide. The SO_2 concentration in the stack gas shall not exceed 300 ppm on a dry basis based upon a 3 hour average. SO_2 emissions shall not exceed 321.9 pounds per hour and 1409.92 tons per year. [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Air Construction permit 0890004-017-AC]

B.7. Visible Emissions. Visible emissions shall be less than 20 percent opacity. [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Final Order dated June 19, 1991, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Rule 62-296.320(4)(b),F.A.C.; Air Construction permit 0890004-017-AC]

Brinks Demister Bypass Operating Conditions

B.8. Emergency. Operation with the Brinks Demister system bypassed due to an emergency shall not exceed two (2) hours, after which, if operations have not been restored, shall require discontinuance of fuel sources other than oil, and prompt notification to the Department, followed by a report to the department of the event and any change in the volume or characteristics of visible emissions experienced during the period of oil-only emergency operation. To the extent feasible, the Department's Northeast District Office shall be notified of reportable bypasses by noontime of the business day following reportable bypass. [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, Final Order dated June 19, 1991, OGC Case No. 90-0332, DOAH Case 90-2153, ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Air Construction permit 0890004-017-AC]

B.9. Shutdown. Operation with the Brinks Demister system bypassed due to a shutdown shall not exceed two (2) hours. [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, Final Order dated June 19, 1991, OGC Case No. 90-0332, DOAH Case 90-2153, ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Air Construction permit 0890004-017-AC]

B.10. Preventative Maintenance. A specific authorization to allow bypassing the Brinks for up to 24 hours, twice per year to allow for required preventative maintenance to the unit providing that the storage lagoons are drawn down and every other effort is made to minimize the duration of the bypass. There shall be no banking of this authorized bypass. [OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C. .]

B.11. Excess Emissions. Excess emissions are permitted for a period not to exceed 4 hours, while the Brinks is bypassed during boiler startup, providing the Department is notified prior to such event, and a written report is submitted delineating the causes and duration. There shall be no banking of this authorized bypass.

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

[Final Order dated June 19, 1991, OGC Case No. 90-0332, DOAH Case 90-2153, Stipulation dated 1/14/80; ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Air Construction permit 0890004-017-AC]

Monitoring of Operations

B.12. Continuous parameter monitoring system (CPMS). The owner or operator shall calibrate, maintain, and operate the MSI BetaGuard Particulate Monitor to measure the beta particle attenuation across a sample of particulate collected on the glass fiber tape. The following procedures shall be used:

a. A measurement shall be recorded at least once every successive 15-minutes.

b. The maximum/upper level limit shall be a meter reading of 45 (representing mg/SCM - milligrams per standard cubic meter).

[40 CFR 63.864(e)(14), Alternate Monitoring Procedure EPA Region IV Approval dated May 19, 2004]

B.13. CPMS – Meter Reading Reestablishment. The owner or operator may establish expanded or replacement operating ranges for the MSI Beta Guard meter reading during subsequent performance tests using the test methods in Conditions B.18. through B.21.

The owner or operator shall continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test. Multiple performance tests may be conducted to establish a range of parameter values.

[40 CFR 63.864(j)(3) and (4)]

B.14. PM Emissions – Corrective Action. The Owner or operator shall implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under Condition B.27. if the following monitoring exceedance occurs:

a. Any 3-hour average parameter value is above the upper meter reading limit (stated in Condition B.12.) or outside the range of values established in Condition B.13.

[40 CFR 63.864(k)(1)(vi)]

B.15. PM Emissions – Violations. It shall be considered a violation of the standards of Condition B.5. if the following monitoring exceedance occurs:

a. When six or more 3-hour average values within any 6-month reporting period are above the upper meter reading limit (stated in Condition B.12.) or outside the range of values established in Condition B.13.

b. For purposes of determining the number of non-opacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.

[40 CFR 63.864(k)(2)(vii) and 63.864(k)(3)]

B.16. Fuel Monitoring. The permittee shall operate and maintain equipment to continuously monitor and record the flow/firing rate of each authorized fuel for the Recovery Boiler including the fuel firing rate restrictions. The flow rate of the virgin, ULSD shall be determined on a monthly basis. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.; Permit No. 0890004-024-AC]

B.17. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.18. Particulate Matter. For the purposes of determining the concentration of PM emitted from this emissions unit, EPA Method 5 or 29 in Appendix A of 40 CFR Part 60 shall be used, except that Method 17 in Appendix A of 40 CFR Part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dry standard cubic meter, dscm (0.004 gr/ dry standard cubic feet,dscf) is added to the results of Method 17, and the stack temperature is no greater than 205 °C (400 °F). For Methods 5, 29, and 17, the sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf), and water must be used as the cleanup solvent instead of acetone in the sample recovery procedure.[40 CFR 63.865(b)(1)]

B.19. PM Concentration Correction. The PM concentration shall be corrected to the appropriate oxygen concentration using the following equation [40 CFR 63.865(b)(2)]:

$$C_{corr} = (C_{meas}) * [(21-X)/(21-Y)]$$

Where:

C_{corr} = the measured concentration corrected for oxygen, g/dscm (gr/dscf).

C_{meas} = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf).

X = the corrected volumetric oxygen concentration (8 percent).

Y = the measured average volumetric oxygen concentration.

* = Multiplied by

B.20. Oxygen Concentration. The oxygen concentration shall be determined using EPA Method 3A or 3B in Appendix A of 40 CFR Part 60. The voluntary consensus standard ANSI/ASME PTC 19.10-1981--Part 10 (incorporated by reference--see 40 CFR 63.14) may be used as an alternative to using Method 3B. The gas sample must be taken at the same time and at the same traverse points as the particulate sample. [40 CFR 63.865(b)(3)]

B.21. The Permittee shall comply with the following:

a. For purposes of selecting sampling port location and number of traverse points, Method 1 or 1A in appendix A of 40 CFR Part 60 shall be used;

b. For purposes of determining stack gas velocity and volumetric flow rate, Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR Part 60 shall be used;

c. For purposes of conducting gas analysis, Method 3, 3A, or 3B in Appendix A of 40 CFR Part 60 shall be used. The voluntary consensus standard ANSI/ASME PTC 19.10-1981--Part 10 (incorporated by reference--see 40 CFR 63.14) may be used as an alternative to using Method 3B; and

d. For purposes of determining moisture content of stack gas, Method 4 in Appendix A of 40 CFR Part 60 shall be used.

[40 CFR 63.865(b)(5)]

B.22. Sulfur Dioxide. Compliance shall be determined with an in stack continuous monitoring system. In addition, the permittee shall conduct a sulfur dioxide emissions compliance test upon request by the Department in accordance with the requirements of Rule 62-297.310(7)(b), F.A.C. The test Method shall be EPA Method 6 incorporated and adopted by reference in Chapter 62-297, F.A.C. [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Air Construction permit 0890004-017-AC]

B.23. Visible Emissions. Compliance with respect to the recovery boiler opacity shall be based on the record of on-line operation of the Brinks Demister System (see Specific Condition B.14.) [LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, Final Order dated May 10, 1991, OGC Case No. 90-0332, DOAH Case 90-2153, ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6); Applicant's letter dated November 24, 1997 letter; Air Construction permit 0890004-017-AC]

B.24. Additional Compliance Test Requirements. This emissions unit is also subject to Common Conditions Subsection G.

B.25. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

B.26. Brinks Demister. A continuous monitor time record of the Brinks Demister System's operational status, programmed to record any bypass of that system, shall be maintained by the permittee, and retained on site for Department inspection pursuant to Rule 62-4.160(7) [OGC Case No. 90-0332, DOAH Case 90-2153, ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO; Air Construction permit 0890004-017-AC]

B.27. Startup Shutdown Malfunction Plan. In addition to the information required in 40 CFR 63.6(e), the owner or operator shall include the following requirements in the startup, shutdown, and malfunction plan for this emissions unit.

a. Procedures for responding to any process parameter level that is inconsistent with the level(s) established under 40 CFR 63.864(j), including the procedures in paragraphs a.(1) and (2) of this condition:

(1) Procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and

(2) Corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance.

b. The startup, shutdown, and malfunction plan also must include the schedules listed in paragraphs b.(1) and (2) of this condition:

(1) A maintenance schedule for each control technique that is consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance; and

(2) An inspection schedule for each continuous monitoring system required under 40 CFR 63.864 to ensure, at least once in each 24-hour period, that each continuous monitoring system is properly functioning.

[40 CFR 63.866(a)]

B.28. Corrective Action Records. The owner or operator of an affected source or process unit must maintain records of any occurrence when corrective action is required under Condition B.14. [40 CFR 63.866(b)]

B.29. Violation Records. The owner or operator shall maintain records of any occurrence when a violation is noted under Condition B.15. [40 CFR 63.866(b)]

B.30. Additional Records. In addition to the general records required by 40 CFR 63.10(b)(2), the owner or operator shall maintain records of the following information:

a. N/A

b. N/A

c. Records of parameter monitoring data required under 40 CFR 63.864, including any period when the operating parameter levels were inconsistent with the levels established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken;

B.30. Continued:

d. Records and documentation of supporting calculations for compliance determinations made under 40 CFR 63.865(a) through (d);

e. Records of monitoring parameter ranges established for each affected source or process unit;

f. N/A

g. N/A

[40 CFR 63.866(c)]

B.31. Virgin ULSD. For each delivery of ULSD, the permittee shall retain at least the following records:

a. ULSD vendor certification;

b. The analysis identifying the sulfur content of the oil;

c. Statement that the ULSD is virgin fuel;

d. Quantity of oil supplied.

[Rule 62-4.070, F.A.C.]

B.32. Semiannual Monitoring Reports. The permittee shall submit a written report to the Northeast District Office (Compliance Authority) summarizing the following for each calendar quarter:

a. Gallons of virgin ULSD fired;

b. Gallons of Red Liquor fired (including percent solids, estimated density);

c. Total Hours of operation;

d. Demonstration that the fuel firing limitations applicable to this EU have been met;

e. Copies of vendor certification for each ULSD fuel delivery as required in Specific Condition B.31.

The reports shall identify any exceedance of an emissions or performance limitation. During periods where no ULSD fuel is fired in the Recovery Boiler, the report shall only indicate that ULSD fuel was not fired during the calendar quarters covered for the semi-annual monitoring report. The reports shall be submitted no later than 30 days following the end of the second and fourth calendar quarters. [Rule 62-4.070(3), F.A.C.]

B.33. Sulfur Dioxide. A SO_2 continuous monitoring system (CMS) report shall be submitted for each calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

a. The magnitude of excess emissions, and the date and time of commencement and completion of each time period of excess emissions.

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunctions (if known), the corrective action taken or preventative measures adopted.

B.33. Continued:

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

d. When no excess emissions have occurred or the CMS has not been inoperative, repaired or adjusted, such information shall be stated in the report.

[Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO; Air Construction permit 0890004-017-AC]

B.34. Brinks. The Department is to be notified in advance of the SSL (or Red Liquor) lagoon drawdown, and when the inspection/repairs of the Brinks are to begin. A follow-up report on what was found, what corrections were made and when the next maintenance event is planned, shall be submitted. [Stipulation dated 1/14/80; Air Construction Permit 0890004-017-AC]

B.35. The owner or operator of any affected source or process unit must submit the applicable notifications from Subpart A of 40 CFR Part 63, as specified in Table 1 of this subpart. [40 CFR 63.867(a)(1)]

B.36. Excess Emissions Report. The owner or operator must report quarterly if measured parameters meet any of the conditions specified in paragraph (k)(1) or (2) of 40 CFR 63.864. This report must contain the information specified in 40 CFR 63.10(c) as well as the number and duration of occurrences when the source met or exceeded the conditions in 40 CFR 63.864(k)(1), and the number and duration of occurrences when the source met or exceeded the conditions in 40 CFR 63.864(k)(2). Reporting excess emissions below the violation thresholds of 40 CFR 63.864(k) does not constitute a violation of the applicable standard.

a. When no exceedances of parameters have occurred, the owner or operator must submit a semiannual report stating that no excess emissions occurred during the reporting period.

b. The owner or operator of an affected source or process unit subject to the requirements of this subpart and subpart S of this part may combine excess emissions and/or summary reports for the mill.

[40 CFR 63.867(c)]

B.37. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

This section addresses the following emissions unit.

Emissions Unit Number	Brief Description
022	No. 6 Power Boiler

Emission Unit 022 identifies the No. 6 Power Boiler is a Bubbling Fluidized Bed boiler that produces steam for electrical generation and usage in the manufacturing process. The total maximum operational heat input of this emissions unit is 525 MMBtu/hr (24-hr average). The boiler was originally constructed in 1983 as a traveling grate coal-fired boiler.

This unit is authorized to fire biomass (green bark, chips, knots, fines, and landscape waste), tires, No. 2 fuel oil for startup, No. 6 fuel oil with a maximum sulfur content of 2.5% by weight, spent sulfite liquor, small quantities of facility-generated on-specification used oil (to be blended with the No. 6 fuel oil); and mill effluent treatment system solids (primary and secondary sludge only).

Particulate matter emissions are controlled with a large settling chamber followed by an electrostatic precipitator (ESP). Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system. The design includes a four-field ESP with collector plates and rigid electrodes. Each field has a dedicated transformer/rectifier (T/R) set and ash hopper. Ash is removed by a screw conveyor system. NO_x emissions are reduced by staged combustion and flue gas recirculation (FGR). A selective non-catalytic reduction (SNCR) system is installed to control NO_x emissions (may be used as determined by plant personnel) . This system consists of an ammonia tank, pumps, piping, compressed air delivery, injectors, and a control system. Acid gases are controlled by a wet alkaline scrubber located after the ESP and induced draft fan. The wet scrubber sprays approximately 4000 gpm of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce acid gas emissions. The design pressure drop across the system is approximately 2 inches of water column.

A continuous opacity monitoring system (COMS); a fuel flow monitor; continuous monitoring of ESP total power (CAM); exhaust flow rate monitor; a continuous emissions monitoring system (CEMS) for SO_2 emissions, a CEMS for NOx emissions, a CEMS for CO emissions, and a CEMS for oxygen.

Exhaust gas exits at approximately 150 °F with a volumetric flow rate of 183,421 acfm through a single wet scrubber stack that is approximately 10 feet in diameter and 190 feet above ground level.

{Permitting note (s): This emissions unit is regulated under: Rule 62-296.410, F.A.C. –Carbonaceous Fuel Burning Equipment; Rule 62-296.405, F.A.C. – Fossil Fuel Steam Generators with More Than 250 Million Btu Per Hour Heat Input; NSPS - 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Rule 62- 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C., 40 CFR 61 Subpart E, National Emission Standard for Mercury, and 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. This emissions unit is classified as existing industrial boiler under 40 CFR 63, Subpart DDDDD}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum heat input rate is as follows:

a. 525 MMBtu per hour based on a 24-hour average, which is approximately 330,000 lb/hour of steam production.[1]

b. 450 MMBtu per hour based on an annual basis, which is approximately 286,000 lb/hr of steam production.[2]

[1] Initial and annual compliance testing shall be conducted within 90% of this permitted steam rate.
[2] Demonstration through recordkeeping on a 12-month rolling average basis.

[Rules 62-4.070(3), 62-204.800, 62-212.200(PTE), F.A.C., Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.2. Methods of Operation. This boiler may be fired with:

a. Biomass, consisting of green bark, knots, chips, fines and landscape waste.

b. Tire derived fuel (TDF).

c. No. 6 fuel oil with a maximum sulfur content of 2.5%, by weight, during startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets.

d. Facility-generated on-specification used oil with a maximum sulfur content of 2.5%, by weight, and shall be blended with the No. 6 fuel oil or spent sulfite liquor prior to firing.

e. No. 2 fuel oil for startup.

f. Spent sulfite liquor with a maximum sulfur content of 5.5%, by weight, for startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets. The maximum firing rate of this fuel shall not exceed 1200 gph.

g. Mill effluent treatment system solids consisting of primary effluent treatment sludge with approximately 30 percent secondary sludge returned from the aeration stabilization basin. The total maximum firing rate shall not exceed 60 tons per day (dry) and a daily average of 45 tons per day (dry). Prior to firing in the No. 6 Power Boiler, both the primary and secondary sludges shall be pressed to approximately 70 percent solids by weight or less. The Permittee is authorized to co-fire mill effluent treatment system solids with Biomass, and/or Tire-Derived Fuel, and/or No. 6 fuel oil.

h. The Permittee shall load the sludge from the mill's effluent treatment system onto the existing biomass feed conveying system through an existing front-end loader dump hopper. The sludge commingles with the biomass on the conveyor and is then fed into the No. 6 Power Boiler along with the biomass.

[Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC; Construction Permit No. 0890004-026-AC; Rule 62-710.210, F.A.C.; Rule 62-4.070, F.A.C.; and, 40 CFR Part 279]

D.3. Hours of Operation. The hours of operation of this emissions unit are not limited, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.4. On Spec Used Oil. This emissions unit is subject to Common Conditions Subsection M.–On-Spec Used Oil Requirements.

Emission Limitations and Standards

{Permitting note: The attached Table 1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **D.5.-D.11**.are based on the specified averaging time of the applicable test method.

D.5. Particulate Matter (PM) Emissions (As determined by EPA Method Compliance Testing stated in Conditions D.21 and D.22.):

a. PM emissions shall not exceed 0.07 lb/MMBtu heat input; nor 36.75 lbs/hr and 138.0 TPY. PM emissions shall be determined by the average of three runs in accordance with Environmental Protection Agency (EPA) Reference Method (RM) 5. Each run shall be a minimum of 60 minutes in duration. [Construction Permit No. 0890004-018-AC; Construction Permit No.0890004-021-AC; and Rule 62-4.070(3), F.A.C.]

b. PM emissions shall not exceed 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel or fossil fuel and wood residue; nor 52.5 lbs/hr. PM emissions shall be determined by the average of three runs in accordance with EPA RM 5. Each run shall be a minimum of 60 minutes in duration. [40 CFR 60.42(a)(1)]

c. PM emissions shall not exceed 0.2 lb/MMBtu heat input of carbonaceous fuel plus 0.1 lb/MMBtu heat input of fossil fuel; nor 105 lbs/hr. PM emissions shall be determined by the average of three runs in accordance with EPA RM 5. Each run shall be a minimum of 60 minutes in duration. [SIP Rule 62-296.410(2)(b)2., F.A.C.]

D.6. Sulfur Dioxide (SO_2) Emissions (As determined by CEMS data):

a. SO_2 emissions shall not exceed 340 nanograms per joule heat input (0.80 lbs per million Btu and 420 lbs/hr) derived from liquid fossil fuel or liquid fossil fuel and wood residue, and measured as any three-hour period (arithmetic average of three contiguous one-hour periods). [NSPS; 40 CFR 60.43(a)(1); 40 CFR 60.45(g)(2); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC; Rule 62-212.400(2)(g), F.A.C.]

b. SO_2 emissions shall not exceed 210.0 tons per consecutive 12-month rolling total in order to escape PSD NSR requirements. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit. [Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400(2)(g), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.7. Nitrogen Oxides (NO_x) Emissions (As determined by CEMS data):

a. NO_x emissions, expressed as NO_2, shall not exceed 129 nanograms per joule heat input (0.30 lbs per million Btu and 101.20 lbs/hr), and measured as any three-hour period (arithmetic average of three contiguous one-hour periods). [NSPS; 40 CFR 60.44(a)(2); 40 CFR 60.45(g)(3); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC; Rule 62-212.400(2)(g), F.A.C.]

b. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PSNO_x = \frac{w(260)+x(86)+y(130)+z(300)}{w+x+y+z}$$

where:

$PSNO_x$ = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w = is the percentage of total heat input derived from lignite;

x = is the percentage of total heat input derived from gaseous fossil fuel;

y = is the percentage of total heat input derived from liquid fossil fuel; and,

z = is the percentage of total heat input derived from solid fossil fuel (except lignite).

[NSPS; and, 40 CFR 60.44(b)]

c. NO_x emissions shall not exceed 380.0 tons per consecutive 12-month rolling total in order to escape PSD NSR requirements. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit. [NSPS; Application Nos. 0890004-018-AC and 0890004-021-AC; 40 CFR 60.45(g); and, Rule 62-212.400(2)(g), F.A.C.]

D.8. Carbon Monoxide (CO) Emissions (As determined by CEMS data). CO emissions shall not exceed 157.5 lbs/hr, 30-day rolling average; nor, 591.3 tons per consecutive 12-month rolling total. These limits are based on 0.3 lbs per million Btu heat input. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.9. Volatile Organic Compounds (VOC) Emissions (As determined by EPA Method Compliance Testing stated in Condition D.25.) VOC emissions shall not exceed 0.002 lbs per million Btu heat input; nor 1.05 lbs/hr and 3.94 TPY. VOC emissions shall be determined by the average of three runs in accordance with EPA RM 25A. Each run shall be a minimum of 60 minutes in duration. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No.. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.10. Mercury Emissions.

a. Mercury emissions, when effluent treatment system solids (sludge) are fired, shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period. [40 CFR 61.52(b)]

b. In order to escape PSD NSR, and as determined by test methods of 40 CFR 61 Subpart E, Mercury Emissions shall be less than 0.1 tons per consecutive 12-month rolling total. [Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400(2)(g), F.A.C.]

{*Permitting Note: Mercury emissions testing conducted on September 10 and October 1, 2008 (60 TPD (dry) sludge firing rate with bark), resulted in average emissions below the test method detection limit, i.e.< 0.30 µg/dscm. The facility did not use the additional test procedures specified in the EPA Determination dated December 7, 2007 during these emissions test.*}

c. This emissions unit is subject to the applicable requirements of 40 CFR Part 61, Subpart A General Provisions.

D.11. Visible Emissions:

a. As determined by COMS data, visible emissions shall not exhibit greater than 20 percent opacity (6-minute average) except for one six-minute period per hour of not more than 27 percent opacity. [NSPS; 40 CFR 60.42(a)(2); and, 40 CFR 60.45(g)(1); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

b. As determined by COMS data as specified in Condition G.30., visible emissions shall not exceed 30 percent opacity except that a density of 40 percent opacity is permissible for not more than two minutes in any one hour. [SIP; and, Rule 62-296.410(2)(b)1. and Chapter 62-297, F.A.C.]

D.12. Fuel Oil Sulfur Content. As determined by lab analysis, the sulfur content of the as-fired No. 6 fuel oil shall not exceed 2.5 percent, by weight. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.13. Spent Sulfite Liquor Sulfur Content. As determined by lab analysis, the sulfur content of the spent sulfite liquor shall not exceed 5.5 percent, by weight. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.14. "On-Specification" Used Oil. Only "on-specification" used oil generated by the facility shall be fired in this emissions unit. The "on-specification" used oil shall be blended with the No. 6 fuel oil prior to firing. The "on-specification" used oil shall meet the requirements of Subsection H. [Rule 62-4.070(3), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS provision.

D.15. SIP Excess Emissions – Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. The Department specifically authorizes excess emissions during cold and warm start-ups for a duration up to 3.5 hours in any 24 hour period provided best operational practices to minimize emissions are followed. The Department may specifically authorize a longer period on a case by case basis. [Rule 62-210.700(1), F.A.C.; No. 0890004-018-AC; Construction Permit No. 0890004-021-AC, Application No. 0890004-029-AV received March 22, 2010, additional information received on September 10, 2010 and November 29, 2010]

D.16. SIP Excess Emissions – Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; No. 0890004-018-AC; Construction Permit No. 0890004-021-AC;]

D.17. NSPS Excess Emissions – Opacity, Sulfur Dioxide, Nitrogen Oxides:

a. Opacity. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.
b. Sulfur dioxide. Excess emissions for affected facilities are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard stated in Condition D.6.a.
c. Nitrogen oxides. Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards stated in Conditions D.7.a and D.7.b.

[40 CFR 60.45(g); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

Continuous Monitoring Requirements

D.18. Steam Monitoring. The permittee shall continuously monitor the steam production rate. [Rule 62-4.070(3), F.A.C.; No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.19. COMS, CEMS, CMS – Opacity, SO_2, NO_x, CO, O_2: The Permittee shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, carbon monoxide emissions and oxygen, in accordance with 40 CFR 60.13, 40 CFR 60.45, and 40 CFR 60, Appendices B and F. [40 CFR 60.13; 40 CFR 60.45(a); 40 CFR 60, Appendices B and F; Rule 62-4.070(3), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No.0890004-021-AC]

D.20. CMS – Exhaust Flow: The owner or operator shall install, calibrate, maintain, and operate a continuous flow monitoring system in accordance with 40 CFR 60, Performance Specification 6 of Appendix B and Procedure 1 of Appendix F. [40 CFR 60, Appendices B and F; Construction Permit No. 0890004-018-AC; Construction Permit No.0890004-021-AC]

Test Methods and Procedures

{Permitting note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.21. Particulate Matter, SO_2, NO_x: The emission rate (E) of Particulate Matter, SO_2, or NO_x for demonstrating compliance with the Particulate Matter, SO_2, and NO_x standards in Conditions D.5.b., D.6.a., and D.7.a. shall be computed for each run using the following equation:

E = C Fd (20.9)/(20.9 - % O2)

where:

E = emission rate of pollutant, ng/J (lb/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

% O_2 = oxygen concentration, percent dry basis.

Fd = factor as determined from Method 19.

[40 CFR 60.46(b)(1)]

D.22. PM Emissions:

a. For the Particulate Matter emissions standard in Condition D.5.b., EPA Method 5B shall be used to determine the particulate matter concentration after FGD systems.

(1) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160 ± 14 °C (320 ± 25 °F).

(2) The emission rate correction factor, integrated or grab sampling and analysis procedure of EPA Method 3B shall be used to determine the O_2 concentration (%O_2). The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of the sample O_2 sample concentrations at all traverse points.

(3) If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points.

b. Acceptable alternative methods and procedures are given in Condition D.33.

[40 CFR 60.46(b)(2); 40 CFR 60.46(a)]

c. For the Particulate Matter emissions standard in Condition D.5.a., the test method for PM shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C.

d. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rules 62-296.410(3)(b) & (c), F.A.C.]

e. A performance test shall be conducted on an annual basis, once each federal fiscal year.

D.22 Continued:

f. Within 90 days of first firing spent sulfite liquor, the permittee shall conduct an initial performance test while firing spent sulfite liquor at permitted capacity. Thereafter, a performance test while firing spent sulfite liquor shall be conducted on an annual basis, once each federal fiscal year if spent sulfite liquor is fired for 400 hours or more during the federal fiscal year.

[Rule 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.23. Sulfur Dioxide Emissions. EPA Method 6 shall be used to determine the SO_2 concentration.

a. (1) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(2) The emission rate correction factor, integrated sampling and analysis procedure of EPA Method 3B shall be used to determine the O_2 concentration (%O_2). The O_2 sample shall be taken simultaneously with, and at the same point as, the SO_2 sample. The SO_2 emission rate shall be computed for each pair of SO_2 and O_2 samples. The SO_2 emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

b. Acceptable alternative methods and procedures are given in Condition D.36.

[40 CFR 60.46(b)(4); 40 CFR 60.46(a); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC;]

c. A compliance test shall be conducted in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.24. Nitrogen Oxides Emissions. EPA Method 7 shall be used to determine the NO_x concentration.

a. (1) The sampling site and location shall be the same as for the SO_2 sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(2) For each NO_x sample, the emission rate correction factor, grab sampling and analysis procedure of EPA Method 3B shall be used to determine the O_2 concentration (%O_2). The sample shall be taken simultaneously with, and at the same point as, the NO_x sample.

(3) The NO_x emission rate shall be computed for each pair of NO_x and O_2 samples. The NO_x emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

D.24. Continued:

b. Acceptable alternative methods and procedures are given in Condition D.37.

[40 CFR 60.46(b)(5); 40 CFR 60.46(a); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

c. A compliance test shall be conducted in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.25. CO Emissions. The test method for carbon monoxide emissions shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C.

a. A compliance test shall be conducted in accordance with 40 CFR 60.8.

b. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.26. VOC Emissions. The test method for VOC emissions shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C.

a. A performance test shall be conducted in accordance with 40 CFR 60.8.; and, once every five years prior to renewing the Title V Air Operation Permit.

b. Within 90 days of first firing spent sulfite liquor, the permittee shall conduct an initial performance test while firing spent sulfite liquor at permitted capacity. Thereafter, a performance test while firing spent sulfite liquor shall be conducted on a 5-year basis prior to renewing the Title V Air Operation Permit.

[40 CFR 60.8; Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.27. Mercury Emissions: Stack testing for emissions of mercury shall be conducted in accordance with the terms of this Specific Condition (D.27.), or Specific Condition D.28. As an alternative to stack testing, testing for mercury emissions by sludge sampling may be conducted in accordance with the terms of Specific Condition D.29.

a. Method 101A of 40 CFR 61 Appendix B shall be the test method.

b. The Permittee shall notify the Compliance Authority in writing at least 30 days prior to an emission test, so that he may at his option observe the test.

c. Samples shall be taken over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period. No changes shall be made in the operation which would potentially increase emissions above the level determined by the most recent stack test, until the new emission level has been estimated by calculation and the results reported to the Department.

D.27 Continued:

d. All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Compliance Authority by a registered letter dispatched within 15 calendar days following the date such determination is completed.

e. Records of emission test results and other data needed to determine total emissions shall be retained at the source and shall be made available, for inspection by the Compliance Authority, for a minimum of 2 years.

[40 CFR 61.53(d)]

{Permitting note: The permittee conducted initial stack testing on April 6, 2011, which demonstrated Hg emissions less than 3.5 lb per 24-hour period. Therefore, no further Hg testing is required unless operations change which could affect Hg emissions, or as otherwise requested by the Department per condition D.30.}

D.28. Mercury Emissions- Alternative Stack Testing Method: As an alternative to Method 101A of 40 CFR 61 Appendix B as stated in Specific Condition D.27, the Permittee may use Method 29 of 40 CFR 60 Appendix A and the procedures specified in this Specific Condition to demonstrate compliance with the standard in Specific Condition D.10.

a. The procedures for preparation of mercury standards and sampling analysis in sections 13.4.1.1 through 13.4.1.3 of ASTM D6784-02 shall be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29.

b. The Quality Assurance/Quality Control procedures in section 13.4.2. of ASTM D6784-02 shall be performed instead of the procedures in section 9.2.3 of Method 29.

c. At the testers' option, the sample recovery and preparation procedures in ASTM D6784-02 may be used instead of the Method 29 procedures, as follows:

(1) Sections 8.2.8 and 8.2.9.1 of Method 29 may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784-02;

(2) Sections 8.2.9.2 and 8.2.9.3 of Method 29 may be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784-02;

(3) Section 8.3.4 of Method 29 may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784-02 (as appropriate);

(4) Section 8.3.5 of Method 29 may be replaced with section 13.3.5 or 13.3.6 of ASTM D6784-02 (as appropriate).

[EPA Determination dated December 7, 2007]

D.29. Mercury Emissions- Sludge Sampling: As an alternative means for demonstrating compliance with the standard in Specific Condition No. D.10., the Permittee shall use Method 105 of 40 CFR 61 Appendix B and the procedures specified in this Specific Condition:

a. The Permittee shall notify the Compliance Authority in writing at least 30 days prior to an emission test, so that he may at his option observe the test.

D.29 Continued:

b. Sampling: The sludge shall be sampled according to Method 105-Determination of Mercury in Wastewater Treatment Plant Sewage Sludges. A total of three composite samples shall be obtained within an operating period of 24 hours. When the 24-hour operating period is not continuous, the total sampling period shall not exceed 72 hours after the first grab sample is obtained. Samples shall not be exposed to any condition that may result in mercury contamination or loss.

c. Sludge Charging Rate: The maximum 24-hour period sludge incineration or drying rate shall be determined by use of a flow rate measurement device that can measure the mass rate of sludge charged to the incinerator or dryer with an accuracy of ±5 percent over its operating range. Other methods of measuring sludge mass charging rates may be used if they have received prior approval by the Administrator.

d. Sludge Analysis: The sampling, handling, preparation, and analysis of sludge samples shall be accomplished according to Method 105 of 40 CFR 61 Appendix B.

e. The mercury emissions shall be determined by use of the following equation:

EHg = MQ Fsm(avg)/1000

where:

EHg = Mercury emissions, g/day.

M = Mercury concentration of sludge on a dry solids basis, μg/g.

Q = Sludge changing rate, kg/day.

Fsm = Weight fraction of solids in the collected sludge after mixing.

1000 = Conversion factor, kg $\mu g/g^2$.

f. No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the Compliance Authority.

g. All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected. Each determination shall be reported to the Compliance Authority by a registered letter dispatched within 15 calendar days following the date such determination is completed.

h. Records of sludge sampling, charging rate determination and other data needed to determine mercury content of wastewater treatment plant sludges shall be retained at the source and made available, for inspection by the Compliance Authority, for a minimum of 2 years.

[40 CFR 61.54]

D.30. Mercury Emissions - Annual Compliance Demonstration:

a. If the mercury emissions as demonstrated by any of the methods described in Specific Conditions D.27., D.28., or D.29. exceed 1.6 kg (3.5 lb) per 24-hour period and/or exceed 0.1 tons per 12 month rolling total the Permittee shall monitor mercury emissions at intervals of at least once per year (JAN - DEC).

b. The results of monitoring shall be reported and retained according to Specific Conditions D.27.d. and D.27.e. or Specific Conditions D.29.g. and D.29.h.

c. If the mercury emissions as demonstrated by any of the methods described in Specific Conditions D.27., D.28., or D.29. do not exceed 1.6 kg (3.5 lb) per 24-hour period and do not exceed 0.1 tons per 12 month rolling total the Permittee shall monitor mercury emissions upon request of the Department.

[Rule 62-4.070, F.A.C., 40 CFR 61.55(a), and Rule 62-212.400, F.A.C.]

{Permitting note: The permittee conducted initial stack testing on April 6, 2011, which demonstrated Hg emissions less than 3.5 lb per 24-hour period. Therefore, no further Hg testing is required unless operations change which could affect Hg emissions, or as otherwise requested by the Department per the above condition.}

D.31. Visible Emissions:

a. For the Visible Emissions standard in Condition D.11.(a), continuous compliance shall be demonstrated by COMS.

[40 CFR 60.11; and, 40 CFR 60.46(b)(3); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

b. For the Visible Emissions standard in Condition D.11.(b), continuous compliance shall be demonstrated by COMS[1].

c. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[1]Subsequent to the initial demonstration of compliance, the method of compliance (COMS) for the NSPS visible emissions standard in Condition D.10.a. shall also satisfy the method of compliance for the SIP visible emissions limit in Condition D.11.b.

[Rules 62-296.410(3)(a) & (c), F.A.C.; Rule 62-297.310(7)(a)4., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.32. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

D.32 Continued:

b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

(1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

(2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

(3) In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rule 62-297.401, F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.33. Fuel Analyses. The following fuel sampling and analysis protocol shall be used for this emissions unit:

a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, by analyzing a representative sample of the blended fuel oil following each fuel delivery.

b. Record hourly fuel totalizer readings with calculated hourly feed rates for each fuel fired, the ratio of fuels fired, the density of each fuel, and the percent sulfur content, by weight, of each fuel.

c. The analyses of the No. 6 fuel oil, as received from the supplier in a bill of lading, shall include the following:

(1) Density (ASTM D 1298-80 or the latest edition).

(2) Calorific heat value in Btu per pound (ASTM D 240-76 or the latest edition).

(3) Sulfur content, by weight (ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition).

D.33 Continued:

d. On a quarterly basis, an analysis of the wood fuel and spent sulfite liquor shall include the following:

(1) Calorific heat value in Btu per pound (ASTM D2015-77, or the latest edition).

(2) Moisture content (ASTM D2016-74, 83, or the latest edition).

(3) Sulfur content, by weight (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods: EPA Publication SW-846 Third Edition (November 1986), or the latest edition).

[40 CFR 60, Subpart A; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.34. Performance Evaluations & Calibration Checks – SO_2, NO_X: For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used:

a. Methods 6, 7, and 3B, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d).

b. Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.

c. For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent

d. For a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

Fossil fuel	In parts per million	
	Span value for SO_2	Span value for NO_X
Gas	([1])	500.
Liquid	1,000	500.
Solid	1,500	1,000.
Combinations	1,000y + 1,500z	500 (x + y) + 1,000z.

{[1]}Not applicable.

where:

x = the fraction of total heat input derived from gaseous fossil fuel, and

y = the fraction of total heat input derived from liquid fossil fuel, and

z = the fraction of total heat input derived from solid fossil fuel.

e. All span values computed under 40 CFR 60.45(c)(3) for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm.

D.34 Continued:

f. For a fossil fuel-fired steam generator that simultaneously burns fossil fuel and non-fossil fuel, the span value of all continuous monitoring systems shall be subject to the Administrator's approval.

[40 CFR 60.45(c); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.35. CMS Conversion Procedures: For any continuous monitoring system installed in accordance with Condition D.19., the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):

a. When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$E = CF[20.9/(20.9\text{-percent } O_2)]$

where:

E, C, F, and % O_2 are determined in accordance with Condition D.36.

[40 CFR 60.45(e)]

D.36. The values used in the equation under Condition D.35. is derived as follows:

a. E = pollutant emissions, ng/J (lb/million Btu).

b. C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^{4} M ng/dscm per ppm (2.59×10^{-9} M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for sulfur dioxide and 46.01 for nitrogen oxides.

c. % O_2, %CO_2 = oxygen or carbon dioxide volume (expressed as percent), determined with equipment specified in Condition D.19.

d. F, Fc = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (Fc), respectively. Values of F and Fc are given as follows:

(1) For liquid fossil fuels including crude, residual, and distillate oils, F = 2.476×10^{-7} dscm/J (9,220 dscf/million Btu) and Fc = 0.384×10^{-7} scm CO_2 /J (1,430 scf CO_2 /million Btu).

(2) For bark F = 2.589×10^{-7} dscm/J (9,640 dscf/million Btu) and Fc = 0.500×10^{-7} scm CO_2 /J (1,840 scf CO_2 / million Btu). For wood residue other than bark F = 2.492×10^{-7} dscm/J (9,280 dscf/million Btu) and Fc = 0.494×10-7 scm CO_2 /J (1,860 scf CO_2 / million Btu).

e. The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or Fc factor (scm CO_2 /J, or scf CO_2 /million Btu) on either basis in lieu of the F or Fc factors specified in paragraph (d) of this Condition:

D.36.e. Continued:

$$F = 10^6 \frac{[227.2 (\text{pct. H}) + 95.5 (\text{pct. C}) + 35.6 (\text{pct. S}) + (\text{pct. N}) - 28.7 (\text{pct. O})]}{\text{GCV}}$$

F_c = 2.0×10^{-5} (pct. C)
GCV (SI units)

F = 10^6 3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) – 0.46(%O)
GCV (English units)

F_c = 20.0(%C)
GCV (SI units)

Fc = 321×10^3(%C)
GCV (English units)

(1) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM method D3178-73 (Reapproved 1979), 89, or D3176-74 or 89 (solid fuels) or computed from results using ASTM method D1137-53 or 75, D1945-64, 76, 91, or 96 or D1946-77 or 90 (Reapproved 1994) (gaseous fuels) as applicable. (These five methods are incorporated by reference-see 40 CFR 60.17.)

(2) GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015-77 (Reapproved 1978), 96, or D5865-98 for solid fuels and D1826-77 or 94 for gaseous fuels as applicable. (These two methods are incorporated by reference-see 40 CFR 60.17.)

(3) For affected facilities which fire both fossil fuels and non-fossil fuels, the F or Fc value shall be subject to the Administrator's approval.

f. For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or Fc factors determined by paragraphs (d) or (e) of this Condition shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} XiFi \qquad \text{or} \qquad Fc = \sum_{i=1}^{n} Xi(Fc)i$$

where:

Xi = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)

Fi or (Fc)i = the applicable F or Fc factor for each fuel type determined in accordance with paragraphs (d) and (e) of this Condition.

n = the number of fuels being burned in combination.

[40 CFR 60.45(f)(1), (2),(3), (4)(iii), (4)(v), (5), (6); Construction Permit No. 0890004-018-AC; Construction Permit No.0890004-021-AC]

D.37. Computing the Prorated NO_x Standard. In order to compute the prorated standard as shown in Condition D.6.b. when combinations of fossil fuels or fossil fuel and wood residue are fired, the percentage (w, x, y, or z) of the total heat input derived from each type of fuel shall be determined as follows:

a. The heat input rate of each fuel shall be determined by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned.

b. ASTM Methods D2015, or D5865 (solid fuels), D240 (liquid fuels), or D1826 (gaseous fuels) (all of these methods are incorporated by reference, see 40 CFR 60.17) shall be used to determine the gross calorific values of the fuels. The method used to determine the calorific value of wood residue must be approved by the Administrator.

c. Suitable methods shall be used to determine the rate of each fuel burned during each test period, and a material balance over the steam generating system shall be used to confirm the rate.

[40 CFR 60.46(c)]

D.38. Alternative EPA Methods. The following EPA Methods may be used as alternatives to the reference methods and procedures Conditions D.22, D.23(a), D.24(a), and D.25(a):

a. The emission rate (E) of PM, SO_2 and NO_X may be determined by using the Fc factor, provided that the following procedure is used:

(1) The emission rate (E) shall be computed using the following equation:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where:

E = Emission rate of pollutant, ng/J (lb/MMBtu);

C = Concentration of pollutant, ng/dscm (lb/dscf);

$\%CO_2$ = CO_2 concentration, percent dry basis; and

F_c = Factor as determined in appropriate sections of Method 19 of appendix A of this part.

(2) If and only if the average Fc factor in Method 19 of 40 CFR 60 Appendix A is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B of 40 CFR 60 Appendix A shall be used to determine the O_2 and CO_2 concentration according to the procedures in Conditions D.22(a)(2), D.23(a)(2), or D.24(a)(2). Then if F_o(average of three runs), as calculated from the equation in Method 3B of 40 CFR 60 Appendix A, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19 of 40 CFR 60 Appendix A, *i.e.* , F_{oa}= 0.209 (F_{da}/F_{ca}), then the following procedure shall be followed:

(i) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.* , if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

D.38.a(2) Continued:

(ii) When F_o is less than 0.97 F_{oa} and when the average difference (d) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.* , if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(iii) When F_o is greater than 1.03 F_{oa} and when the average difference d is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, *e.g.*, if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

b. For Method 5B of 40 CFR 60 Appendix A-3, Method 17 of 40 CFR 60 Appendix A-6 may be used at facilities with wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of 40 CFR 60 Appendix A -3 may be used with Method 17 of 40 CFR 60 Appendix A-6 only if it is used after wet FGD systems. Method 17 of 40 CFR 60 Appendix A-6 shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.

c. Particulate matter and SO_2 may be determined simultaneously with the Method 5 of 40 CFR 60 Appendix A train provided that the following changes are made:

(1) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 of 40 CFR 60 Appendix A is used in place of the condenser (section 2.1.7) of Method 5 of 40 CFR 60 Appendix A.

(2) All applicable procedures in Method 8 of 40 CFR 60 Appendix A for the determination of SO_2(including moisture) are used:

d. For Method 6 of 40 CFR 60 Appendix A, Method 6C of 40 CFR 60 Appendix A may be used. Method 6A of 40 CFR 60 Appendix A may also be used whenever Methods 6 and 3B of 40 CFR 60 Appendix A data are specified to determine the SO_2 emission rate, under the conditions in paragraph (1) of this Condition.

e. For Method 7 of 40 CFR 60 Appendix A, Method 7A, 7C, 7D, or 7E of 40 CFR 60 Appendix A may be used. If Method 7C, 7D, or 7E of 40 CFR 60 Appendix A is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O_2 concentration (%O_2) for the emission rate correction factor.

f. For Method 3 of 40 CFR 60 Appendix A, Method 3A or 3B of 40 CFR 60 Appendix A may be used.

g. For Method 3B of 40 CFR 60 Appendix A, Method 3A of 40 CFR 60 Appendix A may be used.

[40 CFR 60.46(d)]

D.39. Additional Compliance Test Requirements. This emissions unit is also subject to Common Conditions Subsection G.

D.40. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

D.41. Excess Emissions due to Malfunction & Non-compliance CEMS/COMS-Notification**:**

a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's NED office in accordance with Rule 62- 4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's NED.[Rule 62-210.700(6), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

b. If CEMS or COMS data indicates non-compliance, the permittee shall notify the Department's NED office within one working day of such determination. In the event of excess emissions indicating non-compliance, which is determined to be due to start-up or shutdown that does not exceed the duration allowed by Specific Condition D.15., notification to the Department is not required. [Rule 62-4.070(3), F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC, Application No. 0890004-029-AV received March 22, 2010, additional information received on September 10, 2010 and November 29, 2010]

D.42. On-specification Used Oil Records. Monthly records shall be kept of the quantity of "on-specification" used oil fired in this emissions unit. This record shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 279.61 and 761.20(e); Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.43. On-specification Used Oil Records – Annual Operating Report. The permittee shall include in the "Annual Operating Report for Air Pollutant Emitting Facility" a summary of the "on-specification" used oil fired in the No. 6 Power Boiler during the calendar year. [Rule 62-213.440(1)(b)2.b., F.A.C.; Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.44. NSPS Excess Emission and Monitoring System Performance Reports. Excess emission and monitoring system performance (MSP) reports shall be submitted to the Administrator for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in 40 CFR 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined in Condition D.17. [40 CFR 60.45(g), Construction Permit No. 0890004-018-AC; Construction Permit No. 0890004-021-AC]

D.45. Fuel Usage Recordkeeping: The permittee shall obtain, make, and keep records related to the total quantity of mill effluent treatment system solids fired in the No. 6 Power Boiler on at least a monthly basis. This information shall be in a form suitable for inspection at the facility by the Department. [Rules 62-210.370(3), 62-4.070(3), 62-212.300(1)(e)1., 62-212.400(12)(c), F.A.C.]

D.46. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and the project avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

D.46 Continued:

a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix TV of this permit.

b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

(1) The name, address and telephone number of the owner or operator of the major stationary source;

(2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix TV of this permit;

(3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and

(4) Any other information that the owner or operator wishes to include in the report.

c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

d. For this project, baseline factors: 0.048 lb/MMBtu of particulate matter (PM) based on May 15, 2008 compliance test data (bark, knots & TDF fuels); 0.165 lb/MMBtu of oxides of nitrogen (NO_X) based on August 14 & 15, 2008 average CEMS data baseline conditions (bark & TDF fuels -Table 6 in supporting permit application).

e. The permittee shall compute and report annual emissions in accordance with Rule 62-210.370(2), F.A.C. as provided by Appendix TV of this permit. For this project, the permittee shall use the following methods in reporting the actual annual emissions for the No. 6 Boiler (identified as Emission Unit No. 022):

(1) The permittee shall use the actual, annual heat input to the No. 6 Power Boiler and 0.185 lb NOx/MMBtu (average from Table 6 in supporting permit application.) The report shall also include the annual tons of mill effluent treatment system solids fired.

(2) The permittee shall use the data collected from the required stack tests to determine and report the actual annual emissions of PM. The permittee shall follow the stack test methods, test procedures and test frequencies specified in the current Title V air operation permit with the exception that the compliance test shall be conducted while firing mill effluent treatment system solids in the No. 6 Power Boiler at the permitted firing rate authorized by this permit.

D.46.e. Continued:

(3) As defined in Rule 62-210.370(2), F.A.C., the permittee shall use a more accurate methodology if it becomes available.

[Application No. 0890004-026-AC; Rules 62-212.300(1)(e), and 62-210.370, F.A.C.; Comments received from Applicant on 8/18/10 and 9/29/10 regarding Application No. 0890004-026-AC]

D.47. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

D.48. This emissions unit is subject to the requirements of 40 CFR Part 60, Subpart A, General Provisions.

D.49. Other Applicable Requirements. In addition to the specific conditions listed above, this emissions unit is also subject to the applicable requirements contained in:

a. 40 CFR 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The applicable requirements contained in 40 CFR 63, Subpart A General Provision: Table 10 of 40 CFR 63 Subpart DDDDD, which shows the parts of the General Provisions in §§63.1 through 63.15 are applicable.

A.50. Compliance Date: The owner or operator shall comply with the applicable emission limitations and operating limitations of 40 CFR 63 Subpart DDDDD no later than March 21, 2014. [40 CFR 63.7495(b)]

This section addresses the following emissions units.

E.U. ID No.	Brief Description
005	Vent Gas Scrubber and Direct Contact Condenser
021	Evaporator Vents Methanol Condenser
010	Biological Effluent Treatment System

Emission Unit 005 identifies the vent gas scrubber (wet scrubber) and direct contact condenser, which controls emissions from numerous vents from the cooking acid plant, the red stock washers, the unwashed stock tank, the spent sulfite liquor storage tanks, the spent sulfite liquor washer area, the digesters (6), and the blow pits. The scrubber is a packed bed containing 10 feet of packing consisting of two packed sections. The lower section is designed for sulfur dioxide emissions control via gas absorption using alkaline scrubbing media (soda ash, sodium hydroxide, etc.). The spent scrubber media is bled first to other closed sources to make maximum use of the alkali to remove sulfur dioxide, and then to sewer via closed piping to number 1 Pump Station. The sulfur dioxide concentration in the stack is continuously measured with a CMS.

The upper packed section of the vent gas scrubber is designed to condense methanol from the gas stream by direct contact with fresh well water, i.e. the Direct Contact Condenser. This is a once through process. The condensed methanol held in the water is sent to the biological effluent treatment system for treatment in order to comply with the requirements of 40 CFR 63 Subpart S.

Emissions Unit 021 identifies the Evaporator Vents Methanol Condenser System. The steam that is used to eject the vent gases from the two sets of multiple effect evaporators dedicated to increasing the solids concentration of red liquor, along with the evaporator vent gases themselves, are piped to a pre-condenser which condenses the steam followed by the main condenser which condenses the methanol. The gases are then are sent to the multi-stage wet scrubber/Brinks Demister at the Recovery boiler (Emissions Unit No. 006) before being vented to the atmosphere.

In addition, a third multiple effect evaporator train consisting of three (3) refurbished existing evaporators bodies, was installed under Construction Permit No. 0890004-018-AC. It is used to increase the solids concentration of weak Hot Caustic Extract (the spent solution from the pulp washed after the Hot Caustic Extraction stage which is sold to Kraft mills for its sodium content and energy value). This third MEE train is also vented to the pre-condenser followed by the main condenser and the multi-stage wet scrubber/Brinks Demister at the Recovery boiler (Emissions Unit No. 006) before being vented to the atmosphere.

The water used to condense the steam and methanol in the two condensers is reclaimed from the biological effluent treatment system after the methanol has been digested. The condensate formed in the pre-condenser and the main condenser is sewered to the biological effluent treatment system via the Number 3 Pump Station for compliance with the 40 CFR 63 Subpart S requirements. The non-condensable gases from the main condenser are sent to the multi-stage wet scrubber/Brinks Demister at the Recovery boiler (Emissions Unit No. 006) before being vented to the atmosphere.

Emissions Unit 010 consists of the Biological Effluent Treatment System. The effluent from the systems required to be treated by 40 CFR 63 Subpart S (MACT I) combined with other mill effluent is treated in a primary, open clarifier and the aerated stabilization basin (biological treatment system). The biological treatment removes the methanol from the effluent via bacterial digestion.

The following conditions apply to the emissions unit(s) listed above:

E.1. The permittee shall comply with the requirements of 40 CFR Part 63, Subpart A – General Provisions as specified in 40 CFR Part 63, Subpart S, Table 1. [40 CFR 63.440(g)]

E.2.a. Digester System Vent/Pulp Washing System. Each digester system vent and each pulp washing system shall be enclosed and vented into a closed-vent system and routed to the direct contact condenser at the Vent Gas Scrubber (EU 005). This control device shall meet the requirements of Condition E.3. The enclosures and closed-vent system shall meet the requirements of Condition E.5. [40 CFR 63.444(a), 40 CFR 63.444(b)]

b. Evaporator System Vent. Each evaporator system vent shall be enclosed and vented into a closed-vent system and routed to the Evaporator Vents Methanol Condenser System (EU 021). This control device shall meet the requirements of Condition E.3. The enclosures and closed-vent system shall meet the requirements of Condition E.5. [40 CFR 63.444(a), 40 CFR 63.444(b)]

Emission Limitations and Standards

{Permitting note: The attached Table 1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **E.3.** is based on the specified averaging time of the applicable test method.

E.3. Total HAP Emissions. The total HAP emissions from both the equipment systems listed in Conditions E.2.a. and E.2.b., and the vents, wastewater, and condensate streams from the Vent Gas Scrubber and the Direct Contact Condenser, the Evaporator Vents Methanol Condenser System and the Biological Effluent Treatment System (control devices used to reduce HAP emissions), shall be controlled such that no more than 1.1 kilograms of total HAP or methanol per megagram (2.2 pounds per ton) of ODP is emitted[1,2]. [40 CFR 63.444(c) and (c)(2)(i)]

[1] *Pursuant to 40 CFR 63.441 - Pulp samples for applicability or compliance determinations for both the pulping and bleaching systems shall be unbleached pulp.*

[2] *Daily averaging time based on daily pulp production and compliance sampling.*

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS provision.

E.4. Common Conditions – Excess Emissions. This emissions unit is also subject to applicable SSM requirements in Section II, Condition FW11.

Operating Standards

E.5. Enclosures and Closed-Vent Systems Requirements. Each enclosure and closed-vent system specified in Conditions E.2.a. and E.2.b. for capturing and transporting vent streams that contain HAP shall meet the following requirements:

E.5. Continued:

a. Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in Condition No. E.10. Each enclosure or hood opening closed during the initial performance test shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.

b. Each component of the closed-vent system used to comply with Conditions E.2.a. and E.2.b. that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in Condition No. E.9.

c. Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in Conditions E.1 through E.3. shall comply with either of the following requirements:

   (1) On each bypass line, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or

   (2) For bypass line valves that are not computer controlled, the permittee shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

[40 CFR 63.450; 40 CFR 63.454(e)]

Test Methods and Procedures

{Permitting note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

E.6. Vent sampling port locations and gas stream properties. For purposes of selecting vent sampling port locations and determining vent gas stream properties, the owner or operator shall comply with the procedures in 40 CFR 63.457(b). [1] [40 CFR 63.457(b); EPA Office of Air Quality Planning and Standards Approval Letter for Alternate Test Method NCASI CI/WP/98.01 dated February 8, 2002]

[1] Rayonier shall use NCASI Test Method CI/WP/98.01 as an alternative to EPA Test Method 308 for air sampling and analysis.

E.7. Liquid sampling locations and properties. For purposes of selecting liquid sampling locations and for determining properties of liquid streams such as wastewaters, process waters, and condensates, the owner or operator shall comply with the procedures in 40 CFR 63.457(c). [1,2] [40 CFR 63.457(c); EPA Approval Letter for Alternate NCASI Test Method DI/MEOH-94.03 dated November 7, 2001]

[1] Rayonier shall use NCASI Test Method DI/MEOH-94.03 as an alternative to NCASI Test Method DI/MEIH-94.02 for water sampling and analysis.

[2] Rayonier shall collect liquid samples at: the Vent Gas Scrubber Blow down to the sewer, the outlet of the direct contact condenser for the pulping/washing sources, the inlet to the No. 1 Pump Station, the outlet of the main condenser for the evaporator sources, the outlet of the pre-condenser for the evaporator sources, the inlet to the No. 3 Pump Station, the clarifier discharge, i.e. the inlet to the aeration stabilization basin, and the end of the regulated section of the aeration stabilization basin, i.e. mid lagoon.

E.8. Fugitive Methanol Emissions. For purposes of determining methanol emissions from the effluent collection and treatment system (No. 1 Pump Station and No. 3 Pump Station, and the biological effluent treatment system), the owner or operator shall use the mathematical model, WATER9 or the most recent version of this model. [EPA Approval Letter for WATER8 Computer Model dated November 7, 2001]

E.9. Detectable leak procedures. To measure detectable leaks for closed-vent systems as specified in Condition E.5.b. the owner or operator shall comply with the following:

a. Method 21, of Part 60, Appendix A; and

b. The instrument specified in Method 21 shall be calibrated before use according to the procedures specified in Method 21 on each day that leak checks are performed. The following calibration gases shall be used:

(1) Zero air (less than 10 parts per million by volume of hydrocarbon in air); and

(2) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 parts per million by volume methane or n-hexane.

[40 CFR 63.457(d)]

E.10. Negative pressure procedures. To demonstrate negative pressure at process equipment enclosure openings as specified in Condition E.5.a., the owner or operator shall use one of the following procedures:

a. An anemometer to demonstrate flow into the enclosure opening;

b. Measure the static pressure across the opening;

c. Smoke tubes to demonstrate flow into the enclosure opening; or

d. Any other industrial ventilation test method demonstrated to the Administrator's satisfaction.

[40 CFR 63.457(e)]

E.11. Total HAP Concentration Measurements. The owner or operator shall measure the total HAP concentration as methanol. An annual performance test is required pursuant to Rule 62-297.310(7)(a)4.c., F.A.C. once every federal fiscal year. [Rule 62-297.310(7)(a)4.c., F.A.C.; 40 CFR 63.457(f)(2)]

E.12. Vent gas stream calculations. To demonstrate compliance with the mass emission rate, mass emission rate per megagram of ODP, and percent reduction requirements for vent gas streams, the owner or operator shall use the procedures of 40 CFR 63.457(i). [40 CFR 63.457(i)]

E.13. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

E.14. Continuous Monitoring System. The permittee shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in E.15 through E.17. The CMS shall include a continuous recorder. [40 CFR 63.453(a)]

E.15. Continuous Monitoring System – Parameters (EU 005). A CMS shall be operated to measure the following parameters at the methanol direct contact condenser at the Vent Gas Scrubber:

a. Water flow entering the direct contact condenser

b. Gas temperature discharging the direct contact condenser

[Compliance Methodology, August 16, 2002 revised March 1, 2005; Initial Performance Test Plan Approval letter dated March 7, 2002; Initial Performance Test conducted June 17-18, 2002; 40 CFR 63.453(m)]

E.16. Continuous Monitoring System – Parameters (EU 021). A CMS shall be operated to measure the following parameters at the Evaporator Vents Methanol Condenser System:

a. Gas temperature leaving the Main Condenser

b. Water flow entering the Main Condenser

c. Water flow entering the Pre-Condenser

[Compliance Methodology, August 16, 2002 revised March 1, 2005; Initial Performance Test Plan Approval letter dated March 7, 2002; Initial Performance Test conducted June 17-18, 2002; 40 CFR 63.453(m)**]**

E.17. Continuous Monitoring System – Parameters (EU 010). A CMS shall be operated to measure the following parameters at the Effluent Collection and Treatment System:

a. Total Aerator Horsepower

[Compliance Methodology, August 16, 2002 revised March 1, 2005; Initial Performance Test Plan Approval letter dated March 7, 2002; Initial Performance Test conducted June 17-18, 2002; 40 CFR 63.453(j)(2)]

E.18. Enclosure/Closed-Vent System Inspections. Each enclosure and closed-vent system used to comply with E.5. shall comply with the requirements specified in paragraphs a. through f. below.

a. For each enclosure opening, a visual inspection of the closure mechanism specified in E.5.a. shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.

E.18. Continued:

b. Each closed-vent system required by Condition E.5. shall be visually inspected every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.

c. For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in Condition E.5.b. measured initially and annually by the procedures in Condition E.9.

d. Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in Condition E.10.

e. The valve or closure mechanism specified in Condition E.5.c.(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.

f. If an inspection required by paragraphs a. through e. of this condition identifies visible defects in ductwork, piping, enclosures or connections to covers required by Condition E.5., or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.

(1) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.

(2) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

[40 CFR 63.453(k)]

E.19. Operating Parameters – Reestablishment/Establishment. To reestablish the value for each operating parameter required to be monitored under Conditions E.15. through E.17. and as stated in Conditions E20 through E.22., the permittee shall use the following procedures:

a. During subsequent performance tests, continuously record the operating parameter;

b. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;

c. The owner or operator shall provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard.

[40 CFR 63.453(n)]

E.20. Operating Parameters – EU 005- Minimum/Maximum. The Vent Gas Scrubber Stack and Direct Contact Condenser shall be operated in a manner consistent with a minimum water flow rate entering the direct contact condenser of 75 gpm and a maximum gas discharge temperature of 108 °F. Unless reestablished pursuant to the procedures of Condition E.19., the operation of the Vent Gas Scrubber Stack and Direct Contact Condenser below minimum operating parameter values or above maximum operating parameter values, as applicable, or failure to perform procedures required by 40 CFR 63 Subpart S, shall constitute a violation of Condition E.3. and be reported as a period of excess emissions. [40 CFR 63.453(o); Compliance Methodology, August 16, 2002 revised March 1, 2005]

E.21. Operating Parameters – EU 021- Minimum/Maximum. The Evaporator Vents Methanol Condenser System shall be operated in a manner consistent with a minimum total water flow rate of 730 gpm and a maximum gas discharge temperature of 140 °F. Unless reestablished pursuant to the procedures of Condition E.19., the operation of the Evaporator Vents Methanol Condenser System below minimum operating parameter values or above maximum operating parameter values, as applicable, or failure to perform procedures required by 40 CFR 63 Subpart S, shall constitute a violation of Condition E.3. and be reported as a period of excess emissions. [40 CFR 63.453(o); Compliance Methodology, August 16, 2002 revised March 1, 2005]

E.22. Operating Parameters – EU 010- Minimum/Maximum. The Effluent Collection and Treatment System shall be operated in a manner consistent with the minimum aerator horsepower of 1000 hp/day. Except as provided in Condition E.23., or reestablished pursuant to the procedures of Condition E.19., the operation of the Effluent Collection and Treatment System below the minimum operating parameter value, or failure to perform procedures required by 40 CFR 63 Subpart S, shall constitute a violation of Condition E.3. and be reported as a period of excess emissions. [40 CFR 63.453(o); Compliance Methodology, August 16, 2002 revised March 1, 2005]

E.23. Biological Treatment System Monitoring Parameter Excursions. The procedures of this condition apply whenever a monitoring parameter excursion occurs, and it is decided to conduct a performance test to demonstrate compliance with the emission limit stated in Condition E.3. A monitoring parameter excursion occurs whenever the monitoring parameters specified in Condition E.17. is below the minimum operating parameter value established in Condition E.19.

a. As soon as practical after the beginning of the monitoring parameter excursion, the following requirements shall be met:

   (1) Before the steps in paragraph (a)(ii) or (iii) of this section are performed, all sampling and measurements necessary to meet the requirements in paragraph(b) of this Condition shall be conducted.

   (2) Steps shall be taken to repair or adjust the operation of the process to end the parameter excursion period.

   (3) Steps shall be taken to minimize total HAP emissions to the atmosphere during the parameter excursion period.

b. A parameter excursion is not a violation of the applicable emission standard if the results of the performance test conducted using the procedures in this paragraph demonstrate compliance with the applicable emission limit in Condition E.3.

E.23.b. Continued:

(1) Conduct a performance test using the test methods specified in Conditions E.6. through E.12. and the monitoring data specified in Condition E.17. that coincides with the time of the parameter excursion. No maintenance or changes shall be made to the effluent collection and treatment system after the beginning of a parameter excursion that would influence the results of the performance test.

(2) If the results of the performance test specified in paragraph b (1) of this Condition demonstrate compliance with the emission limit in Condition E.3., then the parameter excursion is not a violation of the applicable emission limit.

(3) If the results of the performance test specified in paragraph b.(1) of this Condition do not demonstrate compliance with the emission limit in Condition E.3., then the parameter excursion is a violation of the applicable emission limit.

(4) The results of the performance test specified in paragraph b.(1) of this Condition shall be recorded as specified in Condition E.27.

[40 CFR 63.453(p)(1) and (2)]

Recordkeeping and Reporting Requirements

E.24. The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 63.10, as shown in 40 CFR Part 63, Subpart S, Table 1. [40 CFR 63.454(a)]

E.25. For each applicable enclosure opening, closed-vent system, and closed collection system, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection:

a. Date of inspection;

b. The equipment type and identification;

c. Results of negative pressure tests for enclosures;

d. Results of leak detection tests;

e. The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);

f. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;

g. Repair methods applied in each attempt to repair the defect or leak;

h. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;

i. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;

j. The date of successful repair of the defect or leak;

E.25. Continued:

k. The position and duration of opening of bypass line valves and the condition of any valve seals; and

l. The duration of the use of bypass valves on computer controlled valves.

[40 CFR 63.454(b)]

E.26. The owner or operator shall record the CMS parameters specified in 40 CFR 63.453 and meet the requirements specified in Condition E.24. for any new affected process equipment or pulping process condensate stream that becomes subject to the 40 CFR 63 Subpart S standards due to a process change or modification. [40 CFR 63.454(d)]

E.27. Biological Treatment System Monitoring Parameter Excursions. When complying with Condition E.23., the owner or operator shall prepare a written record specifying the results of the performance test specified in Condition E.23.b. [40 CFR 63.454(f)]

E.28. The permittee shall comply with the reporting requirements of 40 CFR Part 63, Subpart A as specified in Table 1 of Subpart S. [40 CFR 63.455(a)]

E.29. The permittee shall meet the requirements specified in Condition E.28. upon startup of any new affected process equipment or pulping process condensate stream that becomes subject to the standards of this subpart due to a process change or modification.

[40 CFR 63.455(d)]

E.30. If the owner or operator uses the results of the performance test required in Condition E.23.b. to revise the approved values or ranges of the monitoring parameters specified in Condition E.17. the owner or operator shall submit an initial notification of the subsequent performance test to the Administrator as soon as practicable, but no later than 15 days, before the performance test required in Condition E.23.b. is scheduled to be conducted. The owner or operator shall notify the Administrator as soon as practicable, but no later than 24 hours, before the performance test is scheduled to be conducted to confirm the exact date and time of the performance test. [40 CFR 63.455(e)]

This section addresses the following emissions unit.

E.U. ID No.	Brief Description
011	Dissolving-Grade Bleaching System

Emission Unit 011 identifies the Dissolving-Grade Bleaching System -- The bleaching process further conditions the pulp prior to sale. The bleaching area of the facility generally consists of Hot Caustic Extract (HCE) washers, HCE cells and blow tank, various pulp washers and seal tanks, screen tank, chlorine tower, mild extraction tower, continuous bleaching tower, surge and dump tanks, chlorine dioxide tower, and cold caustic extraction tower. Depending on the type of pulp being produced various bleaching agents and equipment is used. Gaseous hazardous air pollutant (HAP) emissions are collected from the following equipment: chlorination tower, old screen tank, continuous bleaching tower, chlorine dioxide retention tower, No. 3, 4, 5, and 5A washer and seal tanks, stock surge tank (to No. 4 washer), and last stage dump tank. HAPs are transported to the Rotabed Model No. 42/60 bisulfite venturi type scrubber for removal. Design air flow rate is approximately 10,000 ACFM. Note: Collection system and Rotabed scrubber started up February 18, 2010.

F.1. Pulp Production Rate. The facility is permitted for a facility-wide pulp production rate of 175,000 ADMT per consecutive 12-months, rolling total (nominally equivalent to 241,130 tons per 12 month rolling total of oven dried unbleached pulp). Additional paper machine improvements are authorized, as outlined in the Compliance Plan for Pulp Production Increase, in order to achieve the 175,000 ADMT per year production rate. . [Rule 62-210.200 (PTE), F.A.C., Compliance Plan for Pulp Production Increase]

F.2. Dissolving-Grade Bleaching System. The equipment at each bleaching stage where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to the Rotabed scrubber which shall meet the requirements of Condition F.3. The enclosures and closed-vent system shall meet the requirements of Condition F.5. [40 CFR 63.445(b)]

F.3. Total Chlorinated HAP Emissions (not including chloroform). The control device used to reduce chlorinated HAP emissions (not including chloroform) from the equipment specified in the description above shall:

a. Be reduced by 99 percent or more by weight from the total chlorinated HAP mass in the vent stream entering the control device; or

b. Achieve a treatment (control) device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or

c. Achieve a treatment (control) device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of ODP.[1,2].

[40 CFR 63.445(c)(3)]

[1] *Pursuant to 40 CFR 63.441 - Pulp samples for applicability or compliance determinations for both the pulping and bleaching systems shall be unbleached pulp.*

[2] *Daily averaging time based on daily pulp production and compliance sampling.*

F.4. Chloroform Air Emissions**:** To reduce chloroform air emissions to the atmosphere the bleaching system shall comply with effluent emission guidelines and standards found in 40 CFR 430.44 through 430.47.[1] [40 CFR 63.445(d)(1)(iii)]

[1] *In the December 21, 2006 Federal Register (Volume 71, Pages 76651-76652) EPA determined that the chloroform effluent limitations would be determined in the National Pollutant Discharge Elimination System (NPDES) permit issued for each Dissolving Grade Bleaching mill system. Compliance with the NPDES permit indicates compliance with 40 CFR 63.445(d)(1)(iii).*

Operating Standards

F.5. Enclosures and Closed-Vent Systems Requirements. Each enclosure and closed- vent system specified in Conditions I.2. for capturing and transporting vent streams that contain HAP shall meet the following requirements:

a. Each enclosure shall maintain negative pressure at each enclosure or hood opening as

demonstrated by the procedures specified in Condition No. F.9. Each enclosure or hood opening closed during the initial performance test shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.

b. Each component of the closed-vent system used to comply with Condition F.2 that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in Condition No. F.8.

c. Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in Condition F.3 shall comply with either of the following requirements:

(1) On each bypass line, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or

(2) For bypass line valves that are not computer controlled, the permittee shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

[**40 C**FR 63.450; 40 CFR 63.454(e)]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS provision.

F.6. Common Conditions – Excess Emissions. This emissions unit is also subject to applicable SSM requirements in Section II, Condition FW11.

Test Methods and Procedures

{Permitting note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

F.7. Vent sampling port locations and gas stream properties. For purposes of selecting vent sampling port locations and determining vent gas stream properties, the owner or operator shall comply with the procedures in 40 CFR 63.457(b). [40 CFR 63.457(b)]

F.8. Detectable leak procedures. To measure detectable leaks for closed-vent systems as specified in Condition F.5.b. the owner or operator shall comply with the following:

a. Method 21, of Part 60, Appendix A; and

b. The instrument specified in Method 21 shall be calibrated before use according to the procedures specified in Method 21 on each day that leak checks are performed. The following calibration gases shall be used:

(1) Zero air (less than 10 parts per million by volume of hydrocarbon in air); and

(2) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 parts per million by volume methane or n-hexane.

[40 CFR 63.457(d)]

F.9. Negative pressure procedures. To demonstrate negative pressure at process equipment enclosure openings as specified in Condition F.5.a., the owner or operator shall use one of the following procedures:

a. An anemometer to demonstrate flow into the enclosure opening;

b. Measure the static pressure across the opening;

c. Smoke tubes to demonstrate flow into the enclosure opening; or

d. Any other industrial ventilation test method demonstrated to the Administrator's satisfaction.

[40 CFR 63.457(e)]

F.10. Bleaching HAP concentration measurement. For purposes of complying with the bleaching system requirements in 40 CFR 63.445, the owner or operator shall measure the total HAP concentration as the sum of all individual chlorinated HAPs [chloroform is excluded in accordance with 40 CFR 63.445(c)] or as chlorine.

Testing shall be conducted in accordance with the procedures and methods described in 40 CFR 63.457(b)(5)(ii) [EPA RM 26A of 40 CFR , Part 60, Appendix A]. Testing and compliance demonstrations shall be conducted once each federal fiscal year. [40 CFR 63.445(c), 40 CFR 63.457(b, h); Rule 62-297.310(7)(a)4.c., F.A.C.]

F.11. Vent gas stream calculations. To demonstrate compliance with the mass emission rate, mass emission rate per megagram of ODP, and percent reduction requirements for vent gas streams, the owner or operator shall use the procedures of 40 CFR 63.457(i). [40 CFR 63.457(i)]

F.12. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

F.13. Continuous Monitoring System. The permittee shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in Condition F.14. The CMS shall include a continuous recorder. [40 CFR 63.453(a)]

F.14. A CMS shall be operated to measure the following parameters for each gas scrubber used to comply with the bleaching system requirements of 40 CFR 63.445(c):

a. The pH or the oxidation/reduction potential of the gas scrubber liquid effluent;

b. *On/off operational status of the bleach plant exhaust gas fan; and

c. The gas scrubber liquid recirculation flow rate.

[40 CFR 63.453(c), 40 CFR 63.453(f), 40 CFR 63.453(m), *EPA letter dated May 20, 2010 approving alternate monitoring requirement in F.12.b. above]

F.15. Enclosure/Closed-Vent System Inspections. Each enclosure and closed-vent system used to comply with F.5. shall comply with the requirements specified in paragraphs a. through e. below:

a. For each enclosure opening, a visual inspection of the closure mechanism specified in Condition F.5.a. shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.

b. Each closed-vent system required by Condition F.5. shall be visually inspected every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.

c. For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in Condition F.5.b. measured initially and annually by the procedures in Condition F.8.

F.15 Continued:

d. Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in Condition F.9.

e. The valve or closure mechanism specified in Condition F.5.c.(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.

f. If an inspection required by paragraphs (a) through (e) of this condition identifies visible defects in ductwork, piping, enclosures or connections to covers required by Condition F.5., or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.

(1) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.

(2) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

[40 CFR 63.453(k)]

F.16. Operating Parameters – Reestablishment/Establishment. To reestablish the value for each operating parameter required to be monitored under Condition F.14.:

a. During subsequent performance tests, continuously record the operating parameter;

b. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;

c. The owner or operator shall provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard.

[40 CFR 63.453(n)]

F.17. Operating Parameters – Established Parameters. Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored. Unless re-established pursuant to the procedures of Condition F.16., operation of the control device below minimum operating parameter values or above established maximum operating parameter values or failure to perform procedures required by this 40 CFR 63.453 shall constitute a violation of the applicable emission standard of 40 CFR 63, Subpart S and be reported as a period of excess emissions.

a. The oxidation/reduction potential of the gas scrubber liquid effluent shall be maintained at less than 113 mV (3 hour average).

b. *On/off operational status of the bleach plant exhaust gas fan shall be maintained in the on position.

c. The gas scrubber liquid recirculation flow rate shall be maintained at a minimum rate greater than 98.9 gallons per minute (3 hour average).

[40 CFR 63.453(o)]

Recordkeeping and Reporting Requirements

F.18. The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 63.10, as shown in 40 CFR Part 63, Subpart S, Table 1. [40 CFR 63.454(a)]

F.19. For each applicable enclosure opening, closed-vent system, and closed collection system, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection:

a. Date of inspection;

b. The equipment type and identification;

c. Results of negative pressure tests for enclosures;

d. Results of leak detection tests;

e. The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);

f. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;

g. Repair methods applied in each attempt to repair the defect or leak;

h. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;

i. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;

j. The date of successful repair of the defect or leak;

F.19. Continued:

k. The position and duration of opening of bypass line valves and the condition of any valve seals; and

l. The duration of the use of bypass valves on computer controlled valves.

[40 CFR 63.454(b)]

F.20. The owner or operator shall record the CMS parameters specified in 40 CFR 63.453 and meet the requirements specified in Condition F.17. for any new affected process equipment or pulping process condensate stream that becomes subject to the 40 CFR 63 Subpart S standards due to a process change or modification. [40 CFR 63.454(d)]

F.21. The permittee shall comply with the reporting requirements of 40 CFR Part 63, Subpart A as specified in Table 1 of Subpart S. [40 CFR 63.455(a)]

F.22. The permittee shall meet the requirements specified in Condition F.20. upon startup of any new affected process equipment or pulping process condensate stream that becomes subject to the standards of this subpart due to a process change or modification. [40 CFR 63.455(d)]

F.23. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Subsection G. Common Conditions – Opacity/Special Compliance Test

This section addresses the following emissions units.

E.U. ID No.	Brief Description
005	Vent Gas Scrubber and Direct Contact Condenser
006	Recovery Boiler

G.1. Opacity. Opacity readings shall not be the exclusive method for determining a violation of the particulate matter emissions limits stated in Condition B.5., but may be used as an indicator of such violation. [Requested by applicant in November 24, 1997 letter.]

G.2. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b),F.A.C.]

Subsection H. Common Conditions – On Spec Used Oil

The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID No.	Brief Description
006	Recovery Boiler
022	No. 6 Power Boiler

Operational Parameters

H.1. The used oil fired in the emissions units listed above shall be facility generated. [Construction Permit No. 0890004-017-AC; Construction Permit No.0890004-018-AC; Construction Permit No.0890004-021-AC]

H.2. Upon request, a certification shall be provided to the Department that the used oil (prior to blending with No. 6 fuel oil) complies with the limits **listed below**, and the provisions of 40 CFR 279 & 761. This information shall be recorded and made available for Department inspection:

ON-SPEC USED OIL SPECIFICATIONS	
Constituent/Property	**Allowable Level**
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1,000 ppm maximum
Flash Point	100°F minimum

As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods

[Construction Permit No. 0890004-017-AC; Construction Permit No.0890004-018-AC; Construction Permit No.0890004-021-AC; 40 CFR 279.11]

H.3. On-specification used oil may be fired as follows:

a. At any time provided the maximum concentration of PCBs is less than 2 ppm. The analysis and recordkeeping requirements apply to each amount prior to blending even if to be blended with 90% virgin oil.

b. Only during normal operation temperature and not during startup or shutdown if the maximum concentration of PCBs is ≥ 2 but < 50 ppm.

[Construction Permit No. 0890004-017-AC; Construction Permit No.0890004-018-AC; Construction Permit No.0890004-021-AC; 40 CFR 279 and 761; and, Rule 62-4.070(3), F.A.C.]

Subsection I. Emissions Unit 024

Subsection I. This section addresses the following emissions unit(s).

ID No.	Emission Unit Description
024	Temporary Emergency Generators

Emission Unit 024 identifies Temporary Emergency Generators. The permittee is authorized to relocate and operate an unlimited number of temporary emergency generators for the production of electricity. The generators will be brought on-site and used during periods of power supply disruptions. Generator engines will normally be compression ignition Caterpillar model no. 3516 or similarly sized engines firing 15 ppm (maximum) by weight sulfur content No. 2 fuel oil and/or biodiesel fuel. Each engine is nominally rated at 2682 hp with a maximum fuel consumption capacity of 126.6 gallons per hour. The maximum annual fuel usage of all generators combined will not exceed 272,500 gallons per year. The nominally sized generator is rated at approximately 2000 kilowatts (kW).

The temporary emergency generators are not subject to NSPS 40 CFR 60, Subpart IIII, Stationary Performance Standards for Compression Ignition Engines nor NESHAP 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines since the engines meet the definition of non road engines and will not be located at the site for longer than 12 months.

Performance Restrictions

I.1. Capacities and Fuels: The proposed work shall not result in any increase in the mill pulp production rate. [Rule 62-4.070(3), F.A.C. and Application No. 0890004-035-AC and -038-AC]

I.2. Fuel combusted in the temporary emergency generators shall be limited as follows:

a. Fuel containing a maximum of 15 ppm by weight sulfur content.

b. Fuel types shall be limited to virgin No. 2 fuel oil or biodiesel fuel (each fuel shall meet federal specifications for diesel fuel).

c. The quantity of fuel combusted in this emission unit shall be limited to 272,500 gallons per calendar year

[Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-035-AC and -038-AC]

Recordkeeping and Reporting Requirements

I.3. The permittee shall record the following information:

a. Manufacturer name and date of manufacture of engine(s)

b. Model No. of each engine

c. Generating capacity in kW of each engine

d. No. of cylinders and displacement per cylinder (liters or cubic inches)

e. Quantity of fuel combusted and kWh generated while located at the site (total engines)

f. Date and number of generators relocated to the site during each power supply disruption

I.3. Continued:

g. Description of each power supply disruption event, including duration of the event and status of the affected existing emission unit(s)

h. Estimate of the quantity of the following pollutants (total from all engines) generated while located at the site:

(1) Carbon Monoxide

(2) Oxides of Nitrogen

(3) Sulfur dioxide

(4) Volatile Organic Compounds

(5) Particulate Matter (PM), PM10, and PM2.5

i. Date each generator is removed from the site during each power supply disruption

j. Maintain fuel record receipts and supplier certifications for the fuel combusted in the temporary emergency generators. Receipts and certifications shall include the supplier name, type of fuel supplied and sulfur content of fuel supplied.

Provide calculations for each pollutant estimate including supporting documentation for any emission factors used.

[Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-035-AC and -038-AC]

I.4. The permittee shall submit to the Permitting Authority the date and number of generators relocated to the site during each power supply disruption. The report shall be submitted within 30 days of the delivery of the relocated generator(s). [Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

I.5. The permittee shall submit to the Permitting Authority the records maintained in specific condition No. I.3 above. The report shall be submitted on or before April 1st of the year following the calendar year in which the data was recorded. [Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

I.6. If generator(s) remain onsite for 12 months or longer or otherwise are no longer classified as temporary, applicable portions of NSPS 40 CFR 60, Subpart IIII, Stationary Performance Standards for Compression Ignition Engines and NESHAP 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines apply. [40 CFR 60, Subpart IIII, 40 CFR 63, Subpart ZZZZ, Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Rule 62-204.800, F.A.C.]

REFERENCED ATTACHMENTS.

The Following Appendices Are Attachments Included for Applicant Convenience

Appendix A, Glossary

Appendix CAM, Compliance Assurance Monitoring Plan

Appendix CP, Compliance Plan for Pulp Production Increase

Appendix I, List of Insignificant Emissions Units and/or Activities

Appendix NESHAP Part 61, Subpart A – General Provisions

Appendix NESHAP Part 61, Subpart E

Appendix NESHAP Part 63, Subpart A – General Provisions

Appendix NESHAP Part 63, Subpart S

Appendix NESHAP, Subpart DDDDD

Appendix NSPS, Subpart A – General Provisions.

Appendix NSPS, Appendix B Performance Specification 1

Appendix NSPS, Appendix B Performance Specification 2

Appendix NSPS, Appendix B Performance Specification 6

Appendix NSPS, Appendix F Procedure 1

Appendix RR, Facility-wide Reporting Requirements

Appendix TR, Facility-wide Testing Requirements

Appendix TV, Title V General Conditions

Appendix U, Appendix U, List of Unregulated Emissions Units and/or Activities

Appendix SS-1, Stack Sampling Facilities

REFERENCED ATTACHMENTS.

The Following Are Attachments Included for Applicant Convenience

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

Table H, Permit History

Table 1, Summary of Air Pollutant Standards and Terms

Table 2, Compliance Requirements

TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)

Alternate Sampling Procedure No. ASP-91-H-01

07-B-AP.pdf

USEPA Region IV NCASI Alternative Test Method DI/MEOH-94.03, NCASI Alternative Test Method CI/WP/98.01, WATER8, and biological treatment as method of compliance w/40 CFR 63.44(c)(2)(i) approval dated November 7, 2001

FDEP- NED Approval Letter for Alternative Continuous Monitoring Parameters for Condensers dated March 7, 2002

USEPA Region IV Alternate Monitoring Approval for Subpart MM dated 10/12/2004

Alternate Sampling Procedure No. ASP-91-H-01

Molten Sulfur Unloading and Spill Monitoring Procedures (dated June 28, 2007)

DEP Molten Sulfur Letter Approval 07-20-2007

USEPA Alternative Monitoring Approval (on/off scrubber fan) for Bleach Plant scrubber vent gas inlet flow rate dated May 20, 2010

USEPA Alternative Monitoring Approval (dated February 8, 2002) for Method 308 required by 40 CFR 63, Subpart S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry, Section 457(b)(5)(i) by using NCASI Alternative Test Method CI/WP/98.01