FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

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GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

Georgia-Pacific Consumer Operations, LLC
P.O. Box 919
Palatka, Florida 32178

Authorized Representative:
Kevin J. Curry, Vice President – Manufacturing

Air Permit No. 1070005-089-AC
Permit Expires: xx/xx/xxxx

Palatka Mill
Air Construction Permit

This is the final air construction permit, which authorizes the replacement of the existing multiple effect evaporators and concentrator in order to increase the solids content of the black liquor solids (BLS) fired in the No. 4 Recovery Boiler from 66 percent to approximately 75 percent. In addition, the Palatka Mill intends to make changes to the No. 4 Recovery Boiler to allow the unit to become the primary destruction device for the mill's low-volume, high concentration (LVHC) non-condensable gas (NCG) stream as well as the only destruction device for the off gases (in the form of liquid methanol) from a new integrated condensate steam stripper system, methanol rectifier, and condenser. The No. 4 Combination Boiler will continue to remain as the secondary control device for the destruction of LVHC NCGs. As a result of this project, the existing Condensate Stripper System (EU 046) and the Thermal Oxidizer (EU 037) will be permanently shut down at the facility. The proposed work will be conducted at Palatka Mill which is located in Putnam County at 215 County Road 216, Palatka, Florida 32177. The UTM coordinates of the facility are Zone 17, 434.00 km East, and 3283.4 km North.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Facility-Wide Conditions

Section 4. Emissions Unit Specific Conditions

Section 5. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 5 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of

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Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida

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Richard S. Rachal III, P.G.
Permitting Program Administrator

FILING AND ACKNOWLEDGEMENT & CERTIFICATE OF SERVICE

Filed on this date pursuant to § 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. The undersigned hereby certifies that the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination, the Draft Permit, and all copies were sent before the close of business on **Month X, 2015** to the listed persons.

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_____ Month X, 2015
Clerk Date

Mr. Kevin Curry: kevin.curry@gapac.com
Mr. Ron Reynolds: ron.reynolds@gapac.com
Mr. Philip D. Cobb, P.E.pcobb@golder.com

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FACILITY AND PROJECT DESCRIPTION

Georgia-Pacific operates an existing paper and pulp mill in Palatka, Florida using the Kraft sulfate process. In the Kraft process, the digesting liquor (white liquor) is a solution of sodium hydroxide and sodium sulfide that is mixed with wood chips and cooked under pressure. The spent liquor, known as weak black liquor, is concentrated and sodium sulfate is added to make up for chemical losses. The black liquor solids (BLS) are burned in the recovery furnace to produce a smelt of sodium carbonate and sodium sulfide. The smelt is dissolved in water to form green liquor to which quicklime (calcium oxide) is added to convert the sodium carbonate back to sodium hydroxide, which reconstitutes the cooking liquor. The spent lime cake (calcium carbonate) is calcined in a rotary lime kiln to produce quicklime, which is used to convert the green liquor to cooking liquor. Other steam and energy needs are met by the power boiler which burns natural gas and the combination boiler which burns a natural gas and carbonaceous fuel (e.g. tree bark and wood fuel).

The existing facility consists of the following emissions units.

Facility ID No. 1070005	
ID No.	**Emission Unit Description**
015	No. 5 Power Boiler
016	No. 4 Combination Boiler
017	No. 4 Lime Kiln
018	No. 4 Recovery Boiler
019	No. 4 Smelt Dissolving Tanks
031	Tall Oil Plant
035	ClO_2 Plant and Methanol Storage Tank
036	ECF No. 3 Bleach Plant
037	Thermal Oxidizer
039	New Bark Hog and Existing Bark/Wood Handling System
044	No. 7 Package Boiler
045	Wide-web Flexographic Printers
046	Condensate Stripper System
047	Brown Stock Washer Lines 3, 5, 6 and 7
048	New Two-State Oxygen Delignification System
050	Converting Department
051	Stationary Internal Combustion Engines

PROPOSED PROJECT

The Palatka Mill is proposing to replace the existing multiple effect evaporators and concentrator in order to increase the solids content of the black liquor solids (BLS) fired in the No. 4 Recovery Boiler from 66 percent to approximately 75 percent. In addition, the Palatka Mill intends to make changes to the No. 4 Recovery Boiler to allow the unit to become the primary destruction device for the mill's low-volume, high concentration

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(LVHC) non-condensable gas (NCG) stream as well as the only destruction device for the off gases (in the form of liquid methanol) from a new condensate steam stripper system, methanol rectifier, and condenser.

The project will consist of the following changes to the facility:

- Permanent shutdown of the existing Thermal Oxidizer (EU 037)
- Permanent shutdown of the existing Condensate Stripper System (EU 046)
- Permanent shutdown of the existing multiple effect evaporator system (Nos. 1 - 4 Evaporator sets and No. 4 concentrator);
- Modification of the No. 4 Recovery Boiler to introduce the LVHC NCG stream into the boiler for destruction via a dedicated burner. The No. 4 Recovery Boiler will function as the primary control device for the LVHC NCG stream and will fire rectified methanol blended with BLS as a supplemental fuel;
- Installation of a new multiple-effect evaporator system (7 total effects "falling film" and concentrator). The new evaporators will increase the solids content of the black liquor solids (BLS) from the current 66 percent by weight to approximately 75 percent by weight. Although the percent solids content will increase, the total weight of solids burned in the No. 4 recovery boiler will not increase with this project;
- Installation of a new integrated foul condensate steam stripper and methanol rectification system;
- Installation of a new storage tank for 75 percent BLS
- Installation of a new storage tank for liquid methanol (from the new condensate steam stripper system);
- Installation of a new soap skimmer;
- Installation of a new soap storage tank.

Currently the foul condensate generated by the batch digesters and the Nos. 1, 2, 3 4 evaporator sets, and No. 4 Concentrator is routed to the Condensate Stripper (EU 046) to remove methanol and other HAP's. The stripper off gases (SOGs) are vented to the No. 4 Combination boiler for destruction.

Under this project, the existing condensate stripper system and multiple effect evaporators and concentrator will be permanently shutdown and replaced with a new multiple effect evaporator system (7 total effects including a concentrator) that includes a new integrated foul condensate steam stripper. The mill foul condensates will be routed to this new condensate steam stripper and the SOGs will be directed to a rectifying column where the methanol will be concentrated and condensed into 80/20 methanol and water mixture and blended with BLS prior to being burned as a supplemental fuel for the No. 4 Recovery Boiler. There will be no additional equipment required for the blending of the methanol and black liquor other than pump and piping. The existing black liquor burners will be used to burn the black liquor and methanol blend. During extended outage periods when BLS cannot be processed in the No. 4 Recovery Boiler, the methanol will be stored in a new 19,750 gallon storage tank. A new 158,540 gallon storage tank will also be installed for the 75 percent BLS.

Additionally, a new soap skimmer will be installed with an associated storage tank. The soap skimmer is a tank that has a rake and internal compartment. Black liquor (approximately 30 percent solids) from the fourth effect of the evaporator is pumped to the soap skimmer, where the rake is used to remove the soap. The soap is routed to the Tall Oil Plant (EU 031) for processing. The black liquor is then pumped back to the third effect of the evaporator system.

No changes will be made to the existing blow heat evaporation system which is comprised of the Accumulator and Pre-Evaporator.

The project will establish the No. 4 Recovery Boiler as the primary control device for the destruction of LVHC NCGs from the Digesters, the new MEE system, and the Turpentine Condensing system by introducing these

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gases into the boiler via a dedicated burner. The No. 4 Recovery Boiler will also be established as the only control device for the destruction of the Stripper Off Gases (as liquid methanol) from the new integrated condensate steam stripper system. The liquid methanol will be blended with BLS prior to firing as a supplemental fuel in the boiler. The NCGs from the new multiple effect evaporator system along with those from the new liquid methanol storage tank will be collected in the existing NCG collection system for burning in the No. 4 Recovery Boiler.

The No. 4 Combination Boiler will remain as the secondary control device for the destruction of LVHC NCGs. When utilized in this mode, a spray tower pre-scrubber is used to remove sulfur from the Batch NCG streams (Batch Digester System) and a separate spray tower pre-scrubber is used to remove the sulfur from the Continuous NCG Streams (the new MEE System) prior to destruction in the boiler. NCGs from the Turpentine Condensing System are vented directly to the boiler for destruction. The No. 4 Combination Boiler will no longer be utilized as the secondary control device for the destruction of stripper off-gases from the condensate stripper system (or the new integrated condensate steam stripper system).

After successful startup, shakedown, and compliance demonstration of the new equipment authorized by this project, the existing MEE System (Nos. 1-4 Evaporator Sets and No. 4 Concentrator), Thermal Oxidizer (Emissions Unit ID No. 037) and Condensate Stripper System (Emissions Unit ID No. 046) will be permanently shut down.

This project will add, remove, modify, or otherwise affect the following emissions units.

FACILITY REGULATORY CLASSIFICATION

Facility ID No. 1070005

ID No.	Emission Unit Description
016	No. 4 Combination Boiler (modify)
018	No. 4 Recovery Boiler (modify)
037	Thermal Oxidizer (remove)
046	Condensate Stripper System (remove)
---	Existing Multiple Effect Evaporator System (Nos. 1-4 Evaporator Sets and No. 4 Concentrator) (remove)
052	Multiple Effect Evaporator System, 7 Total Effects (add) and Integrated Condensate Steam Stripper System including methanol rectifier, condenser (add)

Operation of EUs 015, 017, 019, 031, 035, 036, 039, 044, 045, 047, 048, 050, and 051 at the facility are not affected by this permitting action.

Pursuant to Rule 62-212.400, F.A.C., Georgia-Pacific Consumer Operations, LLC provided information to show that the project will not result in an exceedance of the significant emissions rates that require preconstruction review for the Prevention of Significant Deterioration (PSD) of Air Quality. In accordance with Rule 62-212.300, F.A.C., the permit requires the Palatka Mill to provide reports summarizing the actual emissions for each year during the 5-year period following completion of the project. This is to ensure that the project remains minor with respect to PSD preconstruction review.

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FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates no units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source subject to the Prevention of Significant Deterioration (PSD) of Air Quality in accordance with Rule 62-212.400, F.A.C.
- The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

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SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Northeast District, Permitting Program, Florida Department of Environmental Protection (Department). The Northeast District's mailing address is 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, 904) 256-1700. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office, Compliance Assurance. The mailing address and phone number of the Northeast District Office is: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, 904) 256-1700.

3. Appendices: The following Appendices are attached as part of this permit:

   a. Appendix A. Citation Formats and Glossary of Common Terms;

   b. Appendix B. General Conditions;

   c. Appendix C. Common Conditions; and

   d. Appendix D. Common Testing Requirements.

   e. Appendix BBa. 40 CFR 60 Subpart BBa

   f. Appendix NSPS A. 40 CFR 60 Subpart A – General Provisions

   g. Appendix S. 40 CFR 63 Subpart S

   h. Appendix NESHAP A. 40 CFR 63 Subpart A – General Provisions

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

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(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. Application for Title V Operation Permit. This permit authorizes construction of the permitted emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for an air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation of the emissions units in accordance with the authorizations of this construction permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority.

   [Rules 62-4.030, 62-4.050, and Chapter 62-213, F.A.C.]

9. Previous Air Construction Permits: This permit supplements all previous permits issued for the affected emissions units. The conditions of this permit supersede corresponding similar conditions specified in previous air construction permits. However, if not specifically regulated by this permit, other standards and permit requirements from previous air construction permits remain valid.

   [Rules 62-212.300, F.A.C.]

10. Construction Schedule: The following summarizes the preliminary construction schedule for the project.

    - April – 2015 Start of foundation work (pilings and concrete)
    - Aug. – 2015 Steelwork begins (pipe bridge installation)
    - Dec. – 2015 Start setting evaporator bodies.
    - May – 2016 Mechanically complete
    - June – 2016 Startup

    The permittee shall provide the Compliance Authority with updates to this schedule as necessary.

    [Rule 62-4.070(3), F.A.C.]

11. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and 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.

    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 C of this permit.

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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 C 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. The following Table A provides the PSD analysis for this project:

Table A. Annual Emissions Summary and PSD Applicability

Pollutant	No. 4 Recovery Boiler Annual Emissions Summary, Tons/Year					
	Baseline Actual Emissions (TPY)	Projected Actual Emissions (TPY)	Demand Growth Excludable Emissions (TPY) [3]	Emissions Increases Due to Project (TPY)	PSD Significant Emissions Rate (TPY)	Subject to PSD?
SO_2	99.78	8.10	---	0	40	No
NO_X	472.18	539.79	32.10	35.51	40	No
CO	1249.93	791.54	---	0	100	No
PM	96.62	81.96	---	0	25	No
PM_{10} [1]	79.71	77.65	---	0	15	No
$PM_{2.5}$ [1]	64.54	65.10	---	0.56	10	No
VOC	22.36	45.65	---	23.30	40	No
SAM	12.53	2.46	---	0	7	No
Pb	5.65×10^{-3}	4.31×10^{-3}	---	0	0.6	No
Hg	1.42×10^{-3}	1.54×10^{-3}	---	1.13×10^{-4}	0.1	No
TRS	7.99	4.59	---	0	10	No
CO_2e [2]	976,964	1,082,268	42,660	62,645	75000	No [4]
GHG [2]	975,160	1,080,248	42,596	62,492	0	

[1] Emissions include both filterable and condensable particulate matter.

[2] GHG = sum of emission rates of CO_2, CH_4, and N_2O on a mass basis. CO_2e = sum of emission rates of CO_2, CH_4, and N_2O using global warming potentials (GWP).

GWP: $CO_2 = 1$, $CH_4 = 25$, and $N_2O = 298$. GHG = $CO_2 + CH_4 + N_2O$, $CO_2e = CO_2 + 25*CH_4 + 298*N_2O$.

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[3] Excludable emissions are the level of emissions a unit could have accommodated during the 24-month baseline period and are unrelated to the project.

[4] GHG emission increase must be greater than or equal to zero TPY (mass) **and** CO_2e emissions increase must be greater than or equal to 75,000 TPY.

e. For this project, the Department requires the annual reporting of actual NO_x, and VOC emissions for the No. 4 Recovery Boiler.

1) The permittee shall use the data collected from the required stack tests to determine and report the actual annual emissions of VOC. The permittee shall follow the stack test methods and test procedures specified within the current Title V Operation Permit. An annual stack test shall be required for the purposes of this condition by this construction permit. The same emission factors used in the application to establish baseline emissions shall be used to report the actual annual emissions for natural gas firing.

2) The permittee shall use CEMS data to determine and report actual annual emissions of NO_x.

[Application 1070005-089-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

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1. Unconfined Emissions of 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:

   - Conveyors that are covered or enclosed where feasible and practical
   - Paved roads entering and existing the plant
   - Limiting vehicle speeds
   - Good housekeeping practices

   In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice and the degree of reduction of emissions expected from a particular technique or practice.

   [Rule 62-296.320(4)(c), F.A.C.; Application No. 1070005-089-AC]

2. Excess Emissions: Except as required by specific conditions of this permit dealing with excess emissions with regard to individual emission units, the following conditions apply to excess emissions.

   a. Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and 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.

   b. Malfunction: 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.

   c. Department Discretion: Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

   d. Department Notification: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.

   [Rule 62-210.700, F.A.C.]

3. Objectionable Odors Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

   {Permitting Note: An objectionable odor is defined in Rule 62-210.200(Definitions), F.A.C., as 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), F.A.C.]

4. Open Burning Prohibited: No person shall ignite, cause to be ignited or permit to be ignited any material which will result in any prohibited open burning as regulated by Chapter 62-256, F.A.C.; nor shall any person suffer, allow, conduct or maintain any prohibited open burning.

   [Rule 62-256.300, F.A.C.]

5. 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.]

11. Commencement/Completion of Construction Records: The Permittee shall maintain a record of the commencement and completion of construction dates of the emission units and equipment as authorized in the proposed project.

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

12. Commencement/Completion of Construction Reporting: The Permittee shall submit to the Compliance Authority within a reasonable time (not to exceed 15 days following) the completion date of each recorded items in Facility-Wide Condition No. 11. If construction is done in phases please indicate dates for each phase. Submission may be in writing or sent electronically to the Compliance Authority: Christopher.Kirts@dep.state.fl.us.

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

13. Annual Operating Report. The Permittee shall submit an annual report, as specified in Appendix C – Common Conditions of this permit, which summarizes the actual operating rates and emissions from this facility. The Annual Operating Report for Air Pollutant Emitting Facility (DEP form number 62-210.900(5)) shall be completed each year and shall be submitted to the Compliance Authority by April 1 of the following year.

    [Rule 62-210.370(3), F.A.C.]

A. EU 018 No. 4 Recovery Boiler

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
018	4 Recovery Boiler. *Description:* This unit fires black liquor solids (BLS) as the primary fuel to facilitate the recovery of the cooking liquor. The project will increase the BLS solids content from 66% to 75%. *Capacity:* The total maximum operating capacity of this emissions unit will continue to remain at 210,000 lbs Black Liquor Solids/hr based on a 24-hour average (equivalent to 5.04×10^6 lb/day BLS and 1345 MMBtu/hour based on the permitted capacity and an average heating value of 6410 Btu/lb of BLS). This is also equivalent to approximately 22,580 gallons/hour of black liquor at 75% solids content and 12.4 lb/gallon density. *Fuels:* The project will allow NCGs from the LVHC collection system to be controlled by introduced into the boiler via a dedicated burner. The No. 4 Recovery Boiler will serve as the primary control device for destruction of LVHC NCGs from the Digesters, the new MEE system, and the Turpentine Condensing system. When utilized in this mode, the existing spray tower pre-scrubber will be used to remove sulfur from the Batch NCG Streams (Batch Digester system) and the separate, spray tower pre-scrubber will be used to remove sulfur from the continuous NCG Streams (the new MEE System) prior to destruction in the boiler. NCGs from Turpentine Condensing System will be vented directly to the boiler for destruction. The No. 4 Recovery Boiler will also serve as the only control device for the destruction of the Stripper Off Gases (as liquid methanol) from the new integrated condensate steam stripper being installed as a part of this project. The liquid methanol will be blended with black liquor prior to firing as a supplemental fuel. There will be no additional equipment required for the blending other than pump and piping. The existing black liquor burners will be used to burn the black liquor and methanol blend. BLS is fired as the primary fuel. Natural gas is fired as a startup, shutdown and supplemental fuel. *Controls:* Particulate matter emissions are controlled by an electrostatic precipitator (ESP) with automatic voltage control, 2-chambers, and 6 electric fields per chamber. Total reduced sulfur (TRS) emissions are controlled by the low-odor boiler design. Emissions of nitrogen oxides (NO_X) are controlled by a four-level over-fire air system. Emissions of carbon monoxide (CO) and volatile organic compounds (VOC) are controlled by the combustion design and good operating practices. *Monitors*: Visible Emissions are monitored with a continuous opacity monitoring system (COMS); a continuous emissions monitoring system (CEMS) for SO_2 emissions, a CEMS for NOx emissions, a CEMS for CO emissions, and a CEMS for TRS. *Stack Parameters:* At permitted BLS capacity, the exhaust gas flow rate is 294,000 dscfm at 8% oxygen with an exit temperature of 400° F. Exhaust gases exit a stack that is 12 feet in diameter and 230 feet tall.

{Permitting Note: This emissions unit is regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills, Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit(s) No(s). PSD-FL-171, PSD-FL-226; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated June 7, 1991 and September 18, 1995 and 40 CFR 63, Subpart MM- National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills}.

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MODIFICATION

A.1. **Modifications**: The permittee is authorized to physically modify the No. 4 Recovery boiler to allow Low Volume High Concentration Non Condensible Gases to be introduced into the boiler with the installation of a dedicated NCG burner. The No. 4 Recovery Boiler is also being modified (change in the method of operation) to allow for the firing of liquid methanol and stripper off gases from a new integrated condensate steam stripper system:

- The NCG burner will be sized for approximately 1,000 actual cubic feet per minute of NCG flow with a continuous natural gas 1 igniter of approximately 2 MMBtu/hr.
- The No. 4 Recovery Boiler shall be utilized as the primary control device for the destruction of LVHC NCGs.
- The No. 4 Recovery Boiler shall be utilized as the only control device for the destruction of Stripper Off Gases (SOGs) in the form of liquid methanol from the new integrated condensate steam stripper system.
- Any ancillary equipment as necessary.

[Application No. 1070005-089-AC]

OPERATIONAL PARAMETERS

A.2. Permitted Capacity:

a. Black Liquor Solids: The proposed work shall not result in any increase in the permitted BLS processing rate of 210,000 lbs (BLS)/hr on a 24-hr average (equivalent to 22,580 gallons/hour of black liquor).

{Permitting Note: The maximum heat input from firing BLS is 1,345 MMBtu/hr based on the permitted capacity and an average heating value of 6,410 Btu/lbs of BLS.}

b. Natural Gas Burners:

(1) The total heat input from the combustion of natural gas in the startup and load burners combined shall not exceed 664 MMbtu/hour.

(2) The annual heat input rate to the No. 4 Recovery Boiler from the combustion of natural gas shall not exceed 1,178,220 MMBtu during any consecutive 12 months (equivalent to 10% of the total permitted annual heat input to the boiler).

{Permitting Note: The average heating value of natural gas is approximately 1,000 MMBtu/million cubic feet of gas.}

c. Liquid Methanol: The maximum firing rate of the rectified liquid methanol shall not exceed 133.2 gallons/hour.

d. LVHC NCGs: The NCG burner will be sized for approximately 1,000 actual cubic feet per minute of NCG flow with a continuous natural gas 1 igniter of approximately 2 MMBtu/hr.

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{Permitting Note: The maximum heat input from firing rectified methanol is 8.03 MMBtu/hr based on the permitted capacity, approximated density of 7.09 lb/gal, and an average heating value of 8,500 Btu/lb}

[Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE), Construction Permit No. 1070005-038-AC/PSD-FL-380; Construction Permit No. 1070005-080-AC; Application No. 1070005-089-AC]

A.3. **Authorized Fuels:** The No. 4 Recovery Boiler is authorized to fire only the listed fuels as specified below:

- Black Liquor Solids (Black Liquor at approximately 75% BLS content and 12.4 lb/gallon density) is the primary fuel for the recovery process.
- Natural gas shall be used during startup, shutdown and as a supplemental fuel.
- Rectified Liquid Methanol (80%Methanol 20% Water from integrated Condensate Steam Stripper) blended with BLS prior to firing as a supplemental fuel.

[Rule 62-213.410, F.A.C.; Rule 62-210.700, F.A.C.; Construction Permit No. 1070005-017-AC. Construction Permit No. 1070005-059-AC Construction Permit No. 1070005-080-AC; PCP Exclusion dated March 14, 2002; Application No. 1070005-089-AC]

A.4. **Total HAP Emissions -LVHC NCGs Control Devices.** The existing LVHC system shall be enclosed and vented into a closed-vent system as specified in 40 CFR 63.450 and routed to either the No. 4 Recovery Boiler (primary control device) or the No. 4 Combination Boiler (secondary control device) for combustion. The total HAP emissions from the LVHC system shall be reduced by introducing the HAP emission stream with the primary fuel or into the flame zone of either of the boilers.

[40 CFR 63.443(c), (d)(4)(i)]

A.5. **Hours of Operation:** The hours of operation are not limited.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

{Permitting Note: Unless otherwise specified, the averaging time for Conditions A.7. through A.16. are based on the specified averaging time of the applicable test method.}

A.6. **Total HAP Emissions - LVHC System Excess Emissions**. Periods of excess emissions reported under 40 CFR 63.455 shall not be a violation of 40 CFR 63.443(c) and (d) provided that the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed the following levels:

(1) One percent for control devices used to reduce the total HAP emissions from the LVHC system; and

(2) Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and

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(3) Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

[40 CFR 63.443(e)]

A.7.a. **PM Standard:** PM emissions shall not exceed 0.030 grains per dscf @ 8% O_2 and 75.6 lb/hour based on the average of three test runs.

[Rule 62-212.400(BACT), F.A.C., and Construction Permit No. 1070005-038-AC/PSD-FL-380]

b. **Particulate Matter**: The owner or operator shall ensure that the concentration of particulate matter in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 gram per dry standard cubic meter (g/dscm) (0.044 grain per dry standard cubic foot (gr/dscf)) corrected to 8 percent oxygen, based on the average of three test runs.

[40 CFR 63.862(a)(1)(i)(A)]

c. **Particulate Matter Emissions:** Particulate Matter Emissions shall not exceed 3 lbs/3000 lbs BLS fed. The amount of BLS fired in this recovery boiler shall be continuously monitored and recorded.

[Rule 62-296.404(2), F.A.C]

A.8. **SO_2 Emissions Standards:** As determined by CEMS, SO_2 emissions from the No. 4 Recovery Boiler shall not exceed 100 ppmvd at 8% O_2 based on a 24-hour rolling average. This emissions standard includes all valid SO_2 CEMS data collected except during periods of boiler startup and shutdown.

{Permitting Note: The limit of 100 ppmvd corrected to 8% oxygen is equivalent to 292.8 lb/hour. This limit is based on the PSD modeling analysis for PSD-FL-380 and PSD-FL-393.}

[Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400(12), F.A.C.; and Construction Permit No. 1070005-050-AC]

A.9. **SO_2 Emissions Cap:** As determined by all valid CEMS data, SO_2 emissions from the No. 4 Recovery Boiler shall not exceed 153.9 tons during any consecutive 12 months. This emissions cap includes valid SO_2 CEMS data collected including all periods of startup, shutdown, and malfunction.

{Permitting Note: The purpose of this emissions cap is to avoid PSD preconstruction review for PSD-FL-380 and PSD-FL-393.}

[Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400(12), F.A.C.; and Construction Permit No. 1070005-050-AC]

A.10. **Sulfuric Acid Mist (SAM) Emissions:** Sulfuric Acid Mist (SAM) Emissions shall not exceed 0.81 ppmvd; 3.6 lb/hr and 15.9 TPY, based on the average of three (3) test runs conducted in accordance with EPA Method 8, incorporated and adopted by reference in Chapter 62-297, F.A.C.) or NCASI Method 106 (8A).

[BACT; Permit #AC54-266676; PSD-FL-226]

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A.11a. **TRS Standard:** As determined by data collected from the existing CEMS, TRS emissions shall not exceed 34.2 tons per year based on a 12-month rolling CEMS total.

[Rule 62-212.400(12), F.A.C.; and Construction Permit No. 1070005-038-AC/PSD-FL-380]

A.11.b. **TRS standard:** TRS shall not exceed 7.0 ppmvd at 8% O_2, 10.9 lb/hr, 47.7 TPY as a 12-month rolling average. Maximum of 11.2 ppmvd at 8% O_2 and 17.5 lb/hr is a maximum allowable during any 12-hr block period as measured by TRS CEMS.

[BACT; Permit #AC54-266676; PSD-FL-226 Rule 296.404(5)(b)2.b., F.A.C.]

A.12. **CO Emissions:** CO emissions shall not exceed 400.0 ppmvd @ 8% O_2 and 512.7 lb/hour based on a 30-day rolling CEMS average, excluding periods of startup and shutdown.

[Rule 62-212.400 (BACT), F.A.C.; Permit No. 1070005-038-AC]

A.13. **NO_X Emissions:** As determined by data collected from the required CEMS, NO_X emissions shall not exceed 80.0 ppmvd @ 8% O_2 and 168.5 lb/hour based on a 30-day rolling CEMS average, excluding periods of startup and shutdown.

[Rule 62-212.400 (BACT), F.A.C.]

A.14. **VOC (Volatile Organic Compounds) Emissions:** VOC (Volatile Organic Compounds) Emissions shall not exceed 0.20 lb/ton of BLS and 21.0 lb/hour (THC determined as methane) based on the average of three test runs.

[Rule 62-212.400 (BACT), F.A.C.; Permit No. 1070005-038-AC]

Emissions based on the average of three (3) test runs conducted in accordance with EPA Method 25A to measure the total hydrocarbon concentration, EPA Methods 1 through 4 to measure the volumetric flow rate, and EPA Method 3A or 3B to measure the oxygen concentration to correct the VOC concentration.

[BACT; Permit #AC54-266676; PSD-FL-226]

A.15. **Beryllium Emissions:** Beryllium Emissions shall not exceed 0.5 lb/E+12 Btu; 6.4E-4 lb/hr and 2.8E-3 TPY, based on the average of three (3) test runs conducted in accordance with EPA Method 104.

[BACT; Permit #AC54-266676; PSD-FL-226]

A.16. **Opacity:** Once the ESP is placed in service during startup of the recovery boiler, visible emissions shall not exceed 20% opacity based on a 6-minute average as determined by the existing COMS and EPA Method 9. The COMS must be operated and maintained according to the provisions in §§63.6(h) and 63.8 and paragraphs (1) through (4) of this condition.

(1) - (2) [Reserved]

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(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

[Rule 62-212.400 (BACT), F.A.C.; Construction Permit No. 1070005-038-AC and 40. CFR 63.864(d)]

TESTING AND COMPLIANCE DEMONSTRATION REQUIREMENTS

A.17. Within 60 days after achieving permitted capacity, but not later than 180 days after initially operating the No. 4 Recovery Boiler as authorized by this construction permit (firing liquid methanol, use as a control device for LVHC NCGs and SOGs destruction), the permittee shall conduct performance testing for VOC, total reduced sulfur compounds, sulfur dioxide, NO_x, PM, CO, and opacity with the test methods and procedures outlined in the current Title V Air Operation permit. Testing shall be conducted while firing liquid methanol with BLS as the fuel at permitted capacity. Each test run shall be conducted at a minimum of 90% of the maximum rated heat input to the No. 4 Recovery Boiler.

[Rule 62-4.070(3), F.A.C.]

A.18. Within 180 days after start-up of the No. 4 Recovery Boiler as authorized by this permit, the Permittee shall demonstrate compliance with the applicable requirements of 40 CFR 63, Subpart S as it pertains to the No. 4 Recovery Boiler as a control device. The Permittee shall provide the Compliance Authority documentation of the connection of the duct work, piping, enclosures, etc. to the existing LVHC collection system, including a demonstration that it meets the requirements of 40 CFR 63.450.

[Rule 62-4.070(3), F.A.C.]

A.19. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit.

[Rule 62-297.310(8), F.A.C.]

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B. EU 052 New Multiple Effect Evaporators and Integrated Condensate Steam Stripper System

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
052	New Multiple Effect Evaporator System and Condensate Steam Stripper System. *Description:* Installation of a new multiple effect evaporator (MEE) system with seven total effects (including a concentrator) and an integrated condensate steam stripper. The new MEE system will be designed to concentrate virgin black liquor solids (BLS) from approximately 19.5 percent total dry solids (TDS) to approximately 75 percent TDS. The integrated condensate steam stripper system will remove HAPS from collected mill condensates. The stripper off-gases will be routed to a methanol rectifier and condenser designed to produce 80% liquid methanol. The liquid methanol will be blended with BLS prior to being burned as a supplemental fuel in the No. 4 Recovery Boiler. *Capacity:* The new MEE system will have a maximum design capacity of 5.04 MM lb/day of BLS. Mill condensate flow to the integrated condensate steam stripper system is estimated to be a maximum of 905 gallons per minute. *Controls:* LVHC NCGs generated from the new MEE system and the new methanol storage tank will be collected in the existing NCG collection system and routed to either the No. 4 Recover Boiler (primary control) or the No. 4 Combination Boiler (secondary control) for combustion. Pulping condensates from the new MEE System will be treated in the integrated condensate steam stripper system.

{Permitting Note: Both the new MEE system and the integrated condensate steam stripper are regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills, 40 CFR 63, Subpart S- National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry; 40 CFR 60, Subpart BBa- Standards of Performance for Kraft Pulp Mill Affected Sources for which Construction, Reconstruction or Modification Commenced After May 23, 2013}.

EQUIPMENT

B.1. **<u>New MEE System, BLS Storage Tank, Soap Skimmer, Soap Storage Tank</u>**: The permittee is authorized to install and operate a new multiple effect evaporator set. The new MME set shall consist of falling film" evaporators and a concentrator (a total of seven effects).

- The MEE train will flash-off moisture from the black liquor to increase the solids content from approximately 19.5% total dry solids to approximately 75% total dry solids.
- A new black liquor storage tank with a capacity of approximately 158,540 gallons will be installed to store the 75% solids black liquor. The expected density is 12.4 pounds per gallon (lb/gal), with a heat content of approximately 5,850 Btu/lb.
- A new soap skimmer (tank with a rake and internal compartment) with a capacity of approximately 633,350 gallons will be installed with an associated 16,800 gallon soap storage tank. Black liquor (approximately 30 percent solids) from the fourth effect of the evaporator will be pumped to the soap skimmer, where the rake will be used to remove the soap. The soap will be routed to the Tall Oil Plant (EU 031) for processing. The black liquor will then be pumped back to the third effect of the evaporator system.

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B. EU 052 New Multiple Effect Evaporators and Integrated Condensate Steam Stripper System

- No changes shall be made to the existing blow heat evaporation system which is comprised of the Accumulator and Pre-Evaporator.

New Integrated Condensate Steam Stripper System and Methanol Storage Tank: The permittee is authorized to install and operate an integrated condensate steam stripper associated as a part of the new MEE System.

- The condensate stripper system will include a methanol rectifier and condenser designed to produce 80% liquid methanol. The liquid methanol will be blended with BLS prior to being burned in the No. 4 Recovery Boiler.
- A new methanol storage tank with a capacity of approximately 19,750 gallons will be installed to store the rectified methanol during extended outage periods when BLS cannot be processed in the No. 4 Recovery Boiler. The methanol storage tank will be vented to the existing NCG collection system for combustion in the No. 4 Recovery Boiler (primary control device) or the No. 4 Combination Boiler (secondary control device).

[Application No. 1070005-089-AC]

B.2. **Permitted Capacity- New MEE System**. The maximum total process input rate shall not exceed 210,000 lbs/hr of Black Liquor Solids (BLS) and 5.04 million lbs of BLS/day.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Application No. 1070005-089-AC]

B.3. **Permitted Capacity.** The condensate flow rate to the condensate steam stripper shall not exceed 905 gallons per minute.

[Application No. 1070005-089-AC]

B.4. **Hours of Operation- New MEE System, new integrated condensate steam stripper system**. The hours of operation are not limited.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Application No. 1070005-089-AC]

B.5. **NESHAP, 40 CFR 63 Subpart S- National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry.** Upon startup, the new MEE system and the new integrated condensate steam stripper system shall comply with the existing source provisions of 40 CFR 63 Subpart S.

[40 CFR 63.440(a)(1), 40 CFR 63.440(b)(1); 62-4.070(3), F.A.C.]

B.6. **40 CFR 63, Subpart A-General Provisions.** The new MEE System and the new integrated condensate steam stripper system shall comply with the requirements of 40 CFR 63 Subpart A – General Provisions as indicated in Table 1 of 40 CFR 63 Subpart S.

[40 CFR 63.440(g)]

B.7 **NSPS, 40 CFR 60 Subpart BBa Applicability.** The new MEE System and the new integrated condensate steam stripper system shall comply with applicable provisions of 40 CFR 60 Subpart BBa upon startup.

[40 CFR 60.280a; 62-4.070(3), F.A.C.]

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B.8. **40 CFR 60, Subpart A- General Provision.** The new MEE System and the new integrated condensate steam stripper system are also subject to the applicable requirements of 40 CFR Part 60, Subpart A.

[40 CFR 60.1]

PERFORMANCE RESTRICTIONS

B.9. **Existing No. 1-4 MEE System – Shutdown**. After completing shakedown of the new MEE system, the permittee shall permanently shutdown the existing MEE System (Nos. 1-4 Evaporator Sets and No. 4 Concentrator). The permittee shall provide written notice of the permanent shutdown of the existing MEE System to the Compliance Authority.

[Rule 62-4.070(3), F.A.C.]

B.10. **New MEE System, New Integrated Condensate Steam Stripper System, New Methanol Storage Tank – NCGs.** Non-condensible gases generated from the new MEE system, the new Integrated Steam Stripper system, and the new Methanol Storage Tank shall be shall be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR 63.450 and routed to either the No. 4 Recover Boiler (primary control) or the No. 4 Combination Boiler (secondary control) for control by combustion as stated in **Condition A.4.**

Steam stripper system means a column (including associated stripper feed tanks, condensers, or heat exchangers) used to remove compounds from wastewater or condensates using steam. The steam stripper system also contains all equipment associated with a methanol rectification process including rectifiers, condensers, decanters, storage tanks, and any other equipment serving the same function as those previously listed.

[Application No. 1070005-089-AC; 40 CFR 63.441(def); 40 CFR 63.443(a)(1)(i); 40 CFR 63.443(c)]

B.11. **Pulping Process Condensates:** The pulping process condensates from the following equipment systems shall be treated to meet the requirements specified in **Specific Conditions B.12., B.13-B.15., and B.16.:**

(1) Each digester system;

(2) Each turpentine recovery system;

(3) Each evaporator system condensate from:

(i) The vapors from each stage where weak liquor is introduced (feed stages); and

(ii) Each evaporator vacuum system for each stage where weak liquor is introduced (feed stages).

(4) Each HVLC collection system; and

(5) Each LVHC collection system.

[40 CFR 63.446(a), (b)]

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B.12. **Pulping Process Condensates – Collection:** The pulping process condensates generated, produced, or associated with the equipment systems listed in **Specific Condition B.11.** that in total contain a total HAP mass of 7.2 pounds or more of total HAP per ton of ODP for unbleached production and 11.1 pounds or more of total HAP per ton of ODP for bleached production shall be treated to meet the requirements of **Specific Conditions B.13.- B.16.** [1]

[1] For purposes of meeting this requirement, the permittee may meet a prorated mass standard that is calculated by prorating the applicable mass standard for bleached and unbleached pulp products (11.1 lb/Ton ODP and 7.2 lb/Ton ODP, respectively) by the ratio of tons of bleached and unbleached ODP based on a 15-day rolling average.

[40 CFR 63.446(c)(3); 40 CFR 63.446(i)]

B.13. **Pulping Process Condensates – Closed Collection System:** The pulping process condensates collected pursuant to **Specific Condition B.12.,** shall be conveyed in a closed collection system that is designed and operated to meet the individual drain system requirements specified in 40 CFR Part 63, Subpart RR, §§63.960, 63.961, and 63.962), except the closed vent systems shall be routed to either the No. 4 Recovery Boiler (primary control device) or the No. 4 Combination Boiler (secondary control device) and the enclosures and closed-vent systems requirements specified in §63.450 shall be met instead of in accordance with § 63.693 as specified in §63.962 (a)(3)(ii), (b)(3)(ii)(A), and (b)(5)(iii).

[40 CFR 63.446(d)(1); Application No. 1070005-089-AC]

B.14. **Closed Collection System - Foul Condensate Tank – Detectable Leaks:** The fixed roof and all openings (access hatches, sampling ports, gauge wells) shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million above background, and vented into a closed-vent system that meets the requirements in §63.450 and routed to the No. 4 Recovery boiler (primary control device) or the No. 4 Combination Boiler (secondary control device).

[40 CFR 63.446(d)(2)(i); Application No. 1070005-089-AC]

B.15. **Closed Collection System - Foul Condensate Tank – Openings:** Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.

[40 CFR 63.446(d)(2)(ii)]

B.16. **Pulping Process Condensates – Treatment:** Each pulping process condensate collected pursuant to **Specific Condition No. B.12.** shall be treated in the integrated Condensate Steam Stripper to reduce or destroy the total HAPs according to one of the following standards:

(1) Treat the pulping process condensates to reduce or destroy the total HAPs by at least 92% or more by weight; or

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(2) For mills producing both bleached and unbleached pulp products, the permittee may meet a prorated mass standard that is calculated by prorating the applicable mass standard (kilograms of total HAP per megagram of ODP) for bleached and unbleached pulp production by the ratio of annual megagrams of bleached and unbleached ODP based on a 15-day rolling average.

(a) *Unbleached Pulp Production:* Treat the pulping process condensates to remove 3.3 kilograms or more of total HAP per megagram (6.6 pounds per ton) of ODP, or achieve a total HAP concentration of 210 parts per million or less by weight at the outlet of the control device.

(b) *Bleached Pulp Production:* Treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP, or achieve a total HAP concentration of 330 parts per million or less by weight at the outlet of the control device.

[40 CFR 63.446(e)(3) - (5) 40 CFR 63.446(i); Application No. 1070005-089-AC]

B.17. For each steam stripper system used to treat the pulping process condensates to comply with the requirements specified in **Specific Condition B.16**, periods of excess emissions reported under §63.455 shall not be a violation of **Specific Conditions B.13.- B.16. and B.18.a. (**§63.446(d), (e)(3) through (5), and (f)) provided that the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed 10 percent.

[40 CFR 63.446(g)]

B.18. **Integrate Condensate Steam Stripper System**. Each HAP removed from a pulping process condensate stream during treatment and handling under **Specific Conditions B.13. through B.15. or Conditions B.16.** shall be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR 63.450 and routed to the No. 4 Recovery Boiler for combustion**.**

Stripper off-gases are to be routed to a methanol rectifier and condenser to produce liquid methanol (80% methanol 20% water mixture). The liquid methanol shall be blended with BLS prior to being burned in the No. 4 Recovery Boiler as a supplemental fuel.

[Application No. 1070005-089-AC; 40 CFR 63.443(c); 40 CFR 63.446(f)]

B.19. The owner or operator of an existing affected source subject to the §63.446 requirements shall evaluate all new or modified pulping process condensates or changes in the annual bleached or unbleached ODP used to comply with §63.446(i) **(prorated mass standard stated in Specific Condition B.12. footnote and Specific Condition B.16.(2))**, to determine if they meet the applicable requirements of §63.446.

[40 CFR 63.446(h)]

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CONTINUOUS MONITORING REQUIREMENTS

B.20. **Integrated Condensate Steam Stripper System:** A CMS (as defined in §63.2) shall be installed, calibrated certified, operated, and maintained according to the manufacturer's specifications to measure the following parameters, except as allowed in **Specific Condition B.23.** The CMS shall include a continuous recorder:

(1) The process wastewater feed rate;

(2) The steam feed rate; and

(3) The process wastewater column feed temperature.

[40 CFR 63.453(a); 40 CFR 63.453(g)]

B.21. **Condensate Collection:** A CMS shall be operated to measure the appropriate parameters determined according to the procedures specified in paragraph (n) to comply with the condensate applicability requirements specified in **Specific Condition B.12.**

[40 CFR 63.453(i)]

B.22. **Pulping Process Condensate Closed Collection System- Inspections:** Each pulping process condensate closed collection system used to comply with **Specific Conditions B.13. through B.15.,** shall comply with the following:

(1) Each pulping process condensate closed collection system shall be visually inspected once during each calendar month, with at least 14 days elapsed time between inspections, and shall comply with the inspection and monitoring requirements specified in 40 CFR 63.964 of Subpart RR, except:

(i) Owners or operators shall comply with the recordkeeping requirements of 40 CFR 63.454 instead of the requirements specified in 40 CFR 63.964(a)(1)(vi) and (b)(3) of Subpart RR.

(ii) Owners or operators shall comply with the inspection and monitoring requirements for closed-vent systems and control devices specified in **Specific Condition B.20. and 40 CFR 63.453(k)** instead of the requirements specified in 40 CFR 63.964(a)(2) of Subpart RR.

(2) Each condensate tank used in the closed collection system shall be operated with no detectable leaks as specified in **Specific Condition B.14.** measured initially and annually by the procedures specified in **Specific Condition B.37.** [§63.457(d)]**.**

(3) If an inspection required by this condition identifies visible defects in the closed collection system, or if an instrument reading of 500 parts per million or greater above background is measured, then corrective actions specified in 40 CFR 63.964(b) of Subpart RR shall be taken.

[40 CFR 63.453(l), EPA Approved Alternative received October 20, 2003]

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B.23. Each owner or operator using a control device, technique or an alternative parameter other than those specified in **Specific Conditions B.20. through B.22.** shall install a CMS and establish appropriate operating parameters to be monitored that demonstrate, to the Administrator's satisfaction, continuous compliance with the applicable control requirements.

[40 CFR 63.453(m)]

B.24. **Integrated Condensate Steam Stripper System- Operating Parameters Establishment/Re-establishment:** To establish or reestablish the value for each operating parameter required to be monitored under **Specific B.21., B.22., and B.23.** or to establish appropriate parameters for **Specific Conditions B.21., and B.23.,** the permittee shall use the following procedures:

(1) During the initial performance test required in §63.457(a) or any subsequent performance test, continuously record the operating parameter;

(2) 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;

(3) The owner or operator shall provide for the Administrator's approval the rationale for selecting the monitoring parameters necessary to comply with paragraphs (f), (i), and (m) of this section; and

(4) 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)]

B.25. **New Integrated Condensate Steam Stripper System –- Minimum/Maximum Operating Parameters:** The Condensate Steam Stripper system shall be operated in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under **Specific Conditions B.20. through B.24.** and established under Subpart S. Except as provided in **Specific Condition B.17.**, operation of the condensate steam stripper system below minimum operating parameter values or above maximum operating parameter values established under Subpart S or failure to perform procedures required by Subpart S shall constitute a violation of the applicable Subpart S emission standard and be reported as a period of excess emissions..

[40 CFR 63.453(o)]

B.26. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.453(q)]

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RECORDKEEPING

B.27. 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 and the requirements in **Specific Condition B.28. through Specific Conditions B.30.** for the monitoring parameters specified in §63.453**.**

[40 CFR 63.454(a)]

B.28. 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:

(1) Date of inspection;

(2) The equipment type and identification;

(3) Results of negative pressure tests for enclosures;

(4) Results of leak detection tests;

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

(6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;

(7) Repair methods applied in each attempt to repair the defect or leak;

(8) The reason for the delay if the defect or leak is not repaired within 15 days after discovery;

(9) The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;

(10) The date of successful repair of the defect or leak;

(11) The position and duration of opening of bypass line valves and the condition of any valve seals; and

(12) The duration of the use of bypass valves on computer controlled valves.

[40 CFR 63.454(b)]

B.29. **<u>CMS Parameters</u>:** The owner or operator shall record the CMS parameters specified in §63.453 and meet the requirements of 40 CFR Part 63.10, as shown in 40 CFR Part 63, Subpart S, Table 1, for any new pulping process condensate stream that becomes subject to the 40 CFR 63 Subpart S standards in this subpart due to a process change or modification.

[40 CFR 63.454(d)]

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B.30. **Recordkeeping of malfunctions:** The owner or operator must maintain the following records of malfunctions:

(1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with **Specific Condition B.26.**, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.454(g)]

REPORTING REQUIREMENTS

B.31. The Permittee shall comply with the reporting requirements of 40 CFR 63, Subpart A, as shown in Table 1 of 40 CFR 63, Subpart S, and the requirements stated in **Specific Conditions B.32. through B.34.**

[40 CFR 63.455(a)]

B.32. The Permittee shall meet the requirements stated in **Specific Condition B.31.,** 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)]

B.33. **Malfunction reporting requirements:** If a malfunction occurred during the reporting period, the report must include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with **Specific Condition B.26.**, including actions taken to correct a malfunction.

[40 CFR 63.455(g)]

B.34. **Performance Report submittals.** Performance test reports shall be submitted as specified in paragraphs (1) through (4) of this Condition.

(1) The owner or operator of an affected source shall report the results of the performance test before the close of business on the 60th day following the completion of the performance test, unless approved otherwise in writing by the Administrator. A performance test is "completed" when field sample collection is terminated. Unless otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions and raw data. A complete test report must include the purpose of the test; a brief process description; a complete unit description, including a description of feed streams and control devices; sampling site description; pollutants measured; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions,

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including operating parameters for which limits are being set, during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; chain-of-custody documentation; explanation of laboratory data qualifiers; example calculations of all applicable stack gas parameters, emission rates, percent reduction rates, and analytical results, as applicable; and any other information required by the test method and the Administrator.

(2) Within 60 days after the date of completing each performance test (defined in §63.2) as required by this subpart, the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*http://www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the owner or operator must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(3) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, the owner or operator must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (2) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

(4) All reports required by this subpart not subject to the requirements in paragraphs (h)(2) and (3) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraphs (h)(2) and (3) of this section in paper format

[40 CFR 63.455(h)]

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TEST METHODS AND PROCEDURES

B.35. <u>Performance tests</u>.

(1) An initial performance tests are required for the emissions sources subject to the limitations 63.446, except for emission sources controlled by a combustion device that is designed and operated as specified in 40 CFR 63.443(d)(3) or (4).

[40 CFR 63.457(a), (a)(1)]

(2) A repeat performance test is required on an annual basis, once during each federal fiscal year.

[Rule 62-297.310(7)(a)4.c., F.A.C.]

B.36.<u>Liquid Sampling Locations and Properties:</u> For purposes of selecting liquid sampling locations and for determining properties of liquid streams such as wastewaters, process waters, and condensates required in 40 CFR 63.446, the owner or operator shall comply with the following procedures:

(1) Samples shall be collected using the sampling procedures of the test method listed in paragraph (c)(3) of this Condition selected to determine liquid stream HAP concentrations;

(i) Where feasible, samples shall be taken from an enclosed pipe prior to the liquid stream being exposed to the atmosphere; and

(ii) When sampling from an enclosed pipe is not feasible, samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of HAP compounds prior to sampling.

(2) The volumetric flow rate of the entering and exiting liquid streams shall be determined using the inlet and outlet flow meters or other methods demonstrated to the Administrator's satisfaction. The volumetric flow rate measurements to determine actual mass removal shall be taken at the same time as the concentration measurements.

(3) The owner or operator shall conduct a minimum of three test runs that are representative of normal conditions and average the resulting pollutant concentrations. The minimum sampling time for each test run shall be 1 hour and the grab or composite samples shall be taken at approximately equally spaced intervals over the 1-hour test run period. The owner or operator shall use one of the following procedures to determine total HAP or methanol concentration:

(i) Method 305 in Appendix A of this part, adjusted using the following equation:

$$\overline{C} = \sum_{i=1}^{n} C_i / fm_i$$

Where:

= Pollutant concentration for the liquid stream, parts per million by weight.

C_i = Measured concentration of pollutant i in the liquid stream sample determined using Method 305, parts per million by weight.

fm_i = Pollutant-specific constant that adjusts concentration measured by Method 305 to actual liquid concentration; the fm for methanol is 0.85. Additional pollutant fm values can be found in table 34, subpart G of this part.

n=Number of individual pollutants, i, summed to calculate total HAP.

(ii) For determining methanol concentrations, NCASI Method DI/MEOH-94.03. This test method is incorporated by reference in §63.14(f)(1) of subpart A of this part.

(iii) Any other method that measures total HAP concentration that has been demonstrated to the Administrator's satisfaction.

(4) To determine soluble BOD_5 in the effluent stream from an open biological treatment unit used to comply with §§63.446(e)(2) and 63.453(j), the owner or operator shall use Method 405.1 of part 136 of this chapter with the following modifications:

(i) Filter the sample through the filter paper, into an Erlenmeyer flask by applying a vacuum to the flask sidearm. Minimize the time for which vacuum is applied to prevent stripping of volatile organics from the sample. Replace filter paper as often as needed in order to maintain filter times of less than approximately 30 seconds per filter paper. No rinsing of sample container or filter bowl into the Erlenmeyer flask is allowed.

(ii) Perform Method 405.1 on the filtrate obtained in paragraph (c)(4) of this Condition. Dilution water shall be seeded with 1 milliliter of final effluent per liter of dilution water. Dilution ratios may require adjustment to reflect the lower oxygen demand of the filtered sample in comparison to the total BOD_5. Three BOD bottles and different dilutions shall be used for each sample.

(5) If the test method used to determine HAP concentration indicates that a specific HAP is not detectable, the value determined as the minimum measurement level (MML) of the selected test method for the specific HAP shall be used in the compliance demonstration calculations. To determine the MML for a specific HAP using one of the test methods specified in paragraph (c)(3) of this Condition, one of the procedures specified in paragraphs (c)(5)(i) and (ii) of this Condition shall be performed. The MML for a particular HAP must be determined only if the HAP is not detected in the normal working range of the method.

(i) To determine the MML for a specific HAP, the following procedures shall be performed each time the method is set up. Set up is defined as the first time the analytical apparatus is placed in operation, after any shut down of 6 months or more, or any time a major component of the analytical apparatus is replaced.

(A) Select a concentration value for the specific HAP in question to represent the MML. The value of the MML selected shall not be below the calibration standard of the selected test method.

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(B) Measure the concentration of the specific HAP in a minimum of three replicate samples using the selected test method. All replicate samples shall be run through the entire analytical procedure. The samples must contain the specific HAP at the selected MML concentration and should be representative of the liquid streams to be analyzed in the compliance demonstration. Spiking of the liquid samples with a known concentration of the target HAP may be necessary to ensure that the HAP concentration in the three replicate samples is at the selected MML. The concentration of the HAP in the spiked sample must be within 50 percent of the proposed MML for the demonstration to be valid. As an alternative to spiking, a field sample above the MML may be diluted to produce a HAP concentration at the MML. To be a valid demonstration, the diluted sample must have a HAP concentration within 20 percent of the proposed MML, and the field sample must not be diluted by more than a factor of five.

(C) Calculate the relative standard deviation (RSD) and the upper confidence limit at the 95 percent confidence level using the measured HAP concentrations determined in paragraph (c)(5)(i)(B) of this Condition. If the upper confidence limit of the RSD is less than 30 percent, then the selected MML is acceptable. If the upper confidence limit of the RSD is greater than or equal to 30 percent, then the selected MML is too low, and the procedures specified in paragraphs (c)(5)(i)(A) through (C) of this section must be repeated.

(ii) Provide for the Administrator's approval the selected value of the MML for a specific HAP and the rationale for selecting the MML including all data and calculations used to determine the MML. The approved MML must be used in all applicable compliance demonstration calculations.

(6) When using the MML determined using the procedures in paragraph (c)(5)(ii) of this Condition or when using the MML determined using the procedures in paragraph (c)(5)(i), except during set up, the analytical laboratory conducting the analysis must perform and meet the following quality assurance procedures each time a set of samples is analyzed to determine compliance.

(i) Using the selected test method, analyze in triplicate the concentration of the specific HAP in a representative sample. The sample must contain the specific HAP at a concentration that is within a factor of two of the MML. If there are no samples in the set being analyzed that contain the specific HAP at an appropriate concentration, then a sample below the MML may be spiked to produce the appropriate concentration, or a sample at a higher level may be diluted. After spiking, the sample must contain the specific HAP within 50 percent of the MML. If dilution is used instead, the diluted sample must contain the specific HAP within 20 percent of the MML and must not be diluted by more than a factor of five.

(ii) Calculate the RSD using the measured HAP concentrations determined in paragraph (c)(6)(i) of this Condition. If the RSD is less than 20 percent, then the laboratory is performing acceptably.

[40 CFR 63.457(c)]

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B.37. **Detectable Leak Procedures:** To measure detectable leaks for pulping process wastewater collection systems as specified in **Specific Condition B.14.,** the owner or operator shall comply with the following:

(1) Method 21, of Part 60, Appendix A-7; and

(2) 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:

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

(ii) 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)]

B.38. **Condensate HAP concentration measurement:** The owner or operator shall measure the total HAP concentration as methanol.

[40 CFR 63.457(g)]

B.39. **Liquid stream calculations:** To demonstrate compliance with the mass flow rate, mass per megagram of ODP, and percent reduction requirements for liquid streams specified in §63.446, the owner or operator shall use the following procedures:

(1) The mass flow rates of total HAP or methanol entering and exiting the treatment process shall be calculated using the following equations:

$$E_b = \frac{K}{n \times 10^6}\left(\sum_{i=1}^{n} V_{bi} C_{bi}\right)$$

$$E_a = \frac{K}{n \times 10^6}\left(\sum_{i=1}^{n} V_{ai} C_{ai}\right)$$

where:

E_b= Mass flow rate of total HAP or methanol in the liquid stream entering the treatment process, kilograms per hour.

E_a= Mass flow rate of total HAP or methanol in the liquid exiting the treatment process, kilograms per hour.

K= Density of the liquid stream, kilograms per cubic meter.

V_{bi} = Volumetric flow rate of liquid stream entering the treatment process during each run i, cubic meters per hour, determined as specified in **Specific Condition B.36.**

V_{ai} = Volumetric flow rate of liquid stream exiting the treatment process during each run i, cubic meters per hour, determined as specified in **Specific Condition B.36.**

C_{bi} = Concentration of total HAP or methanol in the stream entering the treatment process during each run i, parts per million by weight, determined as specified in **Specific Condition B.36.**

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C_{ai} = Concentration of total HAP or methanol in the stream exiting the treatment process during each run i, parts per million by weight, determined as specified in **Specific Condition B.36.**

n = Number of runs.

(2) The mass of total HAP or methanol per megagram ODP shall be calculated using the following equation:

$$F = \frac{E_a}{P}$$

where:

F = Mass loading of total HAP or methanol in the sample, in kilograms per megagram of ODP.

E_a = Mass flow rate of total HAP or methanol in the wastewater stream in kilograms per hour as determined using the procedures in paragraph (1) of this Condition.

P = The production rate of pulp during the sampling period in megagrams of ODP per hour.

(3) The percent reduction of total HAP across the applicable treatment process shall be calculated using the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

where:

R = Control efficiency of the treatment process, percent.

E_b = Mass flow rate of total HAP in the stream entering the treatment process, kilograms per hour, as determined in paragraph (1) of this Condition.

E_a = Mass flow rate of total HAP in the stream exiting the treatment process, kilograms per hour, as determined in paragraph (1) of this Condition.

(4) Compounds that meet the requirements specified in paragraphs (4)(i) or (ii) of this Condition are not required to be included in the mass flow rate, mass per megagram of ODP, or the mass percent reduction determinations.

(i) Compounds with concentrations at the point of determination that are below 1 part per million by weight; or

(ii) Compounds with concentrations at the point of determination that are below the lower detection limit where the lower detection limit is greater than 1 part per million by weight.

[40 CFR 63.457(j)]

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B.40. **Condensate segregation procedures:** The following procedures shall be used to demonstrate compliance with the condensate segregation requirements specified in §63.446(c).

To demonstrate compliance with the percent mass requirements specified in §63.446(c)(3) **Specific Condition B.12.** , the procedures specified in paragraphs (i) through (ii) of this Condition shall be performed.

1. Determine the total HAP mass contained in the high-HAP fraction condensates from each equipment system listed in **Specific Condition No. B.11.(**1) through (3) and the total condensates streams from the equipment systems listed in **Specific Condition B.11.(4) and (5)**, using the procedures specified in **Specific Condition Nos. B.36.** and **B.39.**

2. Compliance with the segregation requirements specified in **Specific Condition B.12.** is demonstrated if the total HAP mass determined in paragraph 1. of this Condition is equal to or greater than the appropriate mass requirements specified in **Specific Condition B.12.**

[40 CFR 63.457(m)(2)]

B.41. Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[40 CFR 63.457(o)]

AFFIRMATIVE DEFENSE FOR VIOLATION OF EMISSION STANDARDS DURING MALFUNCTION.

B.42. In response to an action to enforce the standards set forth in §63.446(c) (d) and (e), the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

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(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[40 CFR 63.456]

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B.43. Standard for Total Reduced Sulfur.

a. State Rule 62-296.404, F.A.C. Requirement. Gaseous emissions shall be collected and incinerated in a kraft recovery furnace meeting the requirements of paragraph 62-296.404(3)(c), F.A.C., or a combustion device meeting the requirements of paragraph 62-296.404(3)(f), F.A.C.

[Rule 62-296.404(3)(a)1., F.A.C.]

b. NSPS, 40 CFR 60 Subpart BBa Requirement. No owner or operator shall cause to be discharged into the atmosphere from any multiple-effect evaporator system or condensate stripper system any gases which contain TRS in excess of 5 parts per million (ppm) by volume on a dry basis, corrected to 10-percent oxygen, unless the gases are collected in an LVHC or HVLC closed-vent system meeting the requirements of §63.450 and combusted with other waste gases in an incinerator or other device or combusted in a recovery furnace not subject to the provisions of 40 CFR 60 Subpart BBa (or 40 CFR 60 Subpart BB), and are subjected to a minimum temperature of 650 °C (1200 14 °F) for at least 0.5 second.

These standards apply at all times as specified in §§60.284a.

[40 CFR 60.283a(a)(1)(iii), 40 CFR 60.283a(b)]

B.44. NSPS, 40 CFR 60 Subpart BBa -Excess Emissions. Periods of excess emissions from any multiple-effect evaporator system or condensate stripper system are all times when gases are not routed through the closed-vent system to one of the control devices specified in §60.283a(a)(1)(iii).

[40 CFR 60.284a(d)(3)(iii)]

B.45. NSPS, 40 CFR 60 Subpart BBa -Excess Emissions – Violation. The Administrator will not consider periods of excess emissions reported under §60.288a(a) to be indicative of a violation of the standards provided the criteria in paragraphs (1) and (2) of this Condition are met.

(1) The percent of the total number of possible contiguous periods of excess emissions in the semiannual reporting period does not exceed:

For closed-vent systems delivering gases to one of the control devices specified in §60.283a(a)(iii), the time of excess emissions divided by the total process operating time in the semiannual reporting period does not exceed:

(A) One percent for LVHC closed-vent systems; or

(B) Four percent for HVLC closed-vent systems or for HVLC and LVHC closed-vent systems combined.

(2) The Administrator determines that the affected facility, including air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.

[40 CFR 60.284a(e)(1)(vi), (e)(2)]

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B.46. <u>NSPS, 40 CFR 60 Subpart BBa -Affirmative Defense for Violations of emission standards during malfunction</u>.

In response to an action to enforce the standards set forth in 40 CFR 60.283a, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at §60.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense must not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emission monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

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(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis must also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense must submit a written report to the Administrator with all necessary supporting documentation that explains how it has met the requirements set forth in paragraph (a) of this Condition. This affirmative defense report must be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[40 CFR 60.286a]

B.47. **State Rule 62-296.404, F.A.C. Requirement – TRS Test Method -No. 4 Combination Boiler.** The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B or EPA Method 16C, as described at 40 C.F.R. Part 60, Appendix A-6, adopted and incorporated by reference at Rule 62-204.800, F.A.C. EPA Method 16 or EPA Method 16A or EPA Method 16B or EPA Method 16C shall also be required for instrument certification. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rule 62-296.404(4)(e)3 and Rule 62-296.404(4)(e)3(f) F.A.C.]

B.48. **State Rule 62-296.404, F.A.C. Requirement – TRS Test Method -No. 4 Recovery Boiler.** The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B or EPA Method 16C, as described at 40 C.F.R. Part 60, Appendix A-6, adopted and incorporated by reference at Rule 62-204.800, F.A.C. EPA Method 16 or EPA Method 16A or EPA Method 16B or EPA Method 16C shall also be required for instrument certification. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rule 62-296.404(4)(a)3 and Rule 62-296.404(4)(a)3(f) F.A.C.]

B.49. **State Rule 62-296.404, F.A.C. Requirement –TRS Continuous Monitoring -No. 4 Combination Boiler.** The owner or operator shall provide the Department with a list of physical and chemical parameters for each regulated total reduced sulfur emissions unit that is not required to be equipped with a total reduced sulfur continuous monitor, which will be regularly monitored to demonstrate that the emissions unit is being operated in a manner that can reasonably be expected to result in compliance with the applicable total reduced sulfur emission limiting standards. The owner or operator shall provide information showing the correlation between the specific magnitudes of the specific surrogate parameters and the associated emissions of total reduced sulfur. The owner or operator shall recommend the frequency and method of monitoring for each parameter. The Department shall issue notice to the company pursuant to Chapter 62-103, F.A.C., that specifies the parameters that are to be monitored, the frequency of monitoring, and the parameter limits that must be maintained. The parameters, parameter limits and frequency of monitoring shall become a modification to the permit for each affected emissions

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unit. Excess emissions shall be deemed to occur if the parameters exceed the parameter limits specified in the permit. Such parameter limits may be in the form of the applicable total reduced sulfur emission standard, if an equation is used that estimates the 12-hour average total reduced sulfur emission rate based on the surrogate parameter values during each 12-hour averaging period; or the parameter limits may be in the form of specific parameter values that are not to be exceeded (or dropped below) more often than a specified period of time during each 12-hour averaging period.

[Rule 62-296.404(3)(f)3., 62-296.404(5)(d), F.A.C.]

B.50. NSPS, 40 CFR 60 Subpart BBa -Recordkeeping:

(a) The owner or operator must maintain records of the performance evaluations of the continuous monitoring systems.

(b) For each continuous monitoring system, the owner or operator must maintain records of the following information, as applicable:

(1) Records of the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from any lime kiln, recovery furnace, digester system, brown stock washer system, multiple-effect evaporator system, or condensate stripper system, except where the provisions of §60.283a(a)(1)(iii) apply.

(2) Records of excess emissions as defined in §60.284a(d).

(c) For each malfunction, the owner or operator must maintain records of the following information:

(1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 60.287a(a), (b)(2), (b)(7), (c)]

B.51. State Rule 62-296.404, F.A.C. Requirement -Quarterly Reporting Requirements. The owner or operator of any multiple effect evaporator system, condensate stripper system, kraft recovery furnace, or other emissions unit subject to the provisions of Rule 62-296.404(5), F.A.C. (Continuous Monitoring Requirements), shall submit a written total reduced sulfur emissions and surrogate parameter data report to the Department, as specified in the facility's permit, by the 30th day following the end of each calendar quarter. The report may be submitted electronically.

(a) The report shall include the following information:

1. The magnitude of excess emissions and the date and time of commencement and completion of each time period in which excess emissions occurred.

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2. Specific identification of each period of excess emissions that occurs including startups, shutdowns, and malfunctions of the affected emissions unit. An explanation of the cause of each period of excess emissions, and any corrective action taken or preventive measures adopted. Excess emissions shall be all 12-hour periods for which the appropriate surrogate parameter data or total reduced sulfur continuous emissions monitoring data indicates that an applicable 12-hour average total reduced sulfur emission limiting standard for the emissions unit was exceeded.

3. The date and time identifying each period during which each continuous emissions monitoring system used to measure total reduced sulfur emissions or surrogate parameters was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred or the continuous emissions monitoring system(s) have not been operative, or have been repaired or adjusted, such information shall be stated in the report.

(b) Any owner or operator subject to the provisions of subsections 62-296.404(5) and (6), F.A.C., shall maintain a complete file of any measurements, including continuous emissions monitoring system, monitoring device, and performance testing measurements; any continuous emissions monitoring system performance evaluations; any continuous emissions monitoring system or monitoring device calibration checks; any adjustments and maintenance performed on these systems or devices; and any other information required, recorded in a permanent legible form available for inspection. The file shall be retained for at least three years following the date of such measurements, maintenance, reports and records.

(c) Evaluation of Excess Emissions. The Department shall consider periods of excess emissions from any kraft recovery furnace or any other regulated TRS emissions unit to be evidence of improper operation and maintenance of the monitored emissions unit provided that:

1. For kraft recovery furnaces subject to the emissions limits of paragraph 62-296.404(3)(c), F.A.C., the excess emissions occur during more than one percent of the total number of possible contiguous 12-hour periods of excess emissions in a calendar quarter rounded to the nearest whole number (excluding only the actual 12-hour periods during which a startup, shutdown or malfunction of the kraft recovery furnace occurred and only the actual 12-hour periods when the kraft recovery furnace was not operating), or

2. N/A control unit is not a lime kiln and calciner, or

3. For other regulated non-NSPS total reduced sulfur emissions units, the excess emissions as indicated by the appropriate surrogate parameters occur during more than one percent of the total number of possible contiguous 12-hour periods of excess emissions in a calendar quarter rounded to the nearest whole number (excluding only the actual 12-hour periods during which a startup, shutdown, or malfunction of the emissions unit or its control equipment occurred and only the actual 12-hour periods when the source was not operating), and

4. The Department determines that the affected emissions unit, including air pollution control equipment, is not maintained and operated in a manner which is consistent with good air pollution control practices for minimizing emissions. Such determination shall be based on the failure of the owner or operator of the facility to provide records of maintenance and operation of the emissions unit and related equipment showing operation consistent with good air pollution control practices. Good air pollution control practices shall include:

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a. Operation of all equipment within permit limits for loading rates and other process parameters,

b. An adequate preventive maintenance program based on manufacturer's recommendations or other accepted industry practices,

c. Training of personnel in the operation and maintenance of equipment,

d. Visual and instrument inspections of equipment on a regular basis, and

e. Maintenance of an adequate on-site, or readily available, supply of equipment for routine repairs.

(d) The owner or operator of any kraft pulp mill shall notify the Department, as specified in the facility's permit, in writing within fourteen days of the date on which periods of excess emissions exceed the percentages all owed by subparagraphs 62-296.404(6)(c)1. through 3., F.A.C. The notification may be submitted electronically.

[Rule 62-296.404(6), F.A.C.]

B.52. <u>NSPS, 40 CFR 60 Subpart BBa -Reporting</u>:

(a) For the purpose of reports required under §60.7(c), any owner or operator subject to the provisions of this subpart must report semiannually periods of excess emissions defined in §60.284a(d).

(b) If a malfunction occurred during the reporting period, you must submit a report that contains the following:

(1) The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

(2) A description of actions taken by an owner or operator during a malfunction of an affected facility to minimize emissions in accordance with §60.11(d), including actions taken to correct a malfunction

[40 CFR 60.288a(a),(d)]

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C. EU 016 No. 4 Combination Boiler

E.U. No.	Brief Description
016	No. 4 Combination Boiler**.** *Description:* The boiler is a spreader-stoker traveling grate furnace with a pneumatic fuel feed distribution system. It was manufactured by Babcock & Wilcox and constructed in 1965. This boiler will no longer be utilized as a control device for the destruction of Stripper Off-Gases from the existing Condensate Steam Stripper System (EU 046) or the new integrated condensate steam stripper being installed as a part of this project. This boiler will continue to serve as the backup destruction device for LVHC noncondensable gases (NCGs) from the sources required to be controlled by 40 CFR Part 63, Subpart S (MACT I) and State TRS regulations. When utilized in this mode, a spray tower pre-scrubber is used to remove sulfur from the batch NCG streams (Batch Digester system) and a separate, spray tower pre-scrubber will continue to be used to remove sulfur from the continuous NCG streams (the new MEE System) prior to destruction in the boiler. NCGs from the Turpentine Condensing system are vented directly to the boiler for destruction. The boiler is permitted to operate as the backup destruction device for a maximum uptime of 20 percent which is equivalent to an annual maximum total of ~~548.7~~ **264.9** tons of Sulfur Dioxide from the burning of NCGs. Pursuant to the requirements of 40 CFR 63, Subpart S, the high-volume, low-concentration (HVLC) dilute-noncondensable gases (DNCGs) from the brown stock washer system (Nos. 5, 6, and 7 BSW lines), the associated pressure knotters and screens, the oxygen delignification system, the post oxygen delignification washer, and the bleach plant pre-washer (decker) are collected in the HVLC DNCG gas collection system and treated by combustion in the No. 4 Combination Boiler. *Capacity:* The total maximum operating capacity of this emissions unit will continue to remain at 512.7 MMBty/hr based on a 24-hour average when firing only carbonaceous fuel or in combination with other fuel (based on 57 tons/hr carbonaceous fuel and an average heating value of 4500Btu/lb on a wet, as fired basis) and 427.0 MMBtu/hr based on a 24-hour average when firing only natural gas (based on 427,000 cubic feet/hr of natural gas and an average heating value of 1000 Btu/cf) The maximum steam production rate is 475,000 lb/hour based on steam conditions of 900o F at 1275 psi. *Fuels:* This boiler may be fired with carbonaceous fuel (such as tree bark and wood fuel) and Natural gas. *Controls:* Particulate matter emissions are controlled by mechanical dust collectors as pre-cleaners to an electrostatic precipitator (formerly the ESP for the No. 5 Power Boiler) in series. *Stack Parameters:* At permitted capacity, the exhaust gas flow rate is 67,700 dscfm at 10% oxygen with an exit temperature of 500° F. Exhaust gases exit a stack that is 7.1 feet in diameter and 237 feet tall.

{Permitting Note: This emissions unit is regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills, Rule 62-296.410, F.A.C. – Carbonaceous Fuel Burning Equipment, 40 CFR 63, Subpart S - National Emission Standards for Hazardous Air Pollutants for Pulp Mills adopted and incorporated by reference in Rule 62-204.800, F.A.C, PCP Exclusion dated March 14, 2002, 40 CFR 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters }.

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C. EU 016 No. 4 Combination Boiler

The following permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

Permit Being Modified: Permit No. 1070005-017-AC issued on April 5, 2002
Specific Condition Nos. 2., 3.c., 4.c.

After startup, shakedown, and successful demonstration of compliance of the equipment authorized by this construction permit, the following permit conditions are revised as follows:

2. Methods of Operation. This boiler shall be fired with following fuels:
   a. ~~No. 6 fuel oil with a sulfur content that shall not exceed **2.35%** by weight and on-spec used oil.~~
   b. Natural gas ~~as startup fuel~~. The natural gas may be kept on pilot for flame safety.
   c. NCGs ~~and/or SOGs~~ during periods when the boiler is being utilized for their destruction.

   [Construction Permit Application, Request by Applicant received June 21, 2000; Permit No. 1070005-066-AC; Application No. 1070005-089-AC]

3.c. Sulfur Dioxide Emissions shall not exceed the following:

Fuel Options	Emissions Limitation		
	Sulfur Content	Lb/hr	TPY
---	≤2.35% by weight	~~1,701.9~~ 304.0	~~5,259.5~~ 272.0

* Includes ~~additional~~ SO_2 emissions due to NCG burning ~~and SOG burning~~ of ~~626.4~~ 302.4 lbs/hr and ~~548.7~~ 264.9 TPY, 1.63 lbs/hr and 7.14 TPY due to carbonaceous fuel burning, and assumes the following:

1. The burning of any NCG ~~and/or SOG~~ for a partial hour is deemed as a full hour of SO_2 contribution;
2. For just NCG burning, the contribution is considered to be 302.4 lbs/hr of SO_2, regardless of the amount of NCGs burned;

~~3. For just SOG burning, the contribution is considered to be 324.0 lbs/hr of SO_2, regardless of the amount of SOGs burned;~~

~~4. For simultaneous NCG and SOG burning, the contribution is considered to be 626.4 lbs/hr of SO_2 regardless of the amount of NCGs and SOGs burned together;~~

5. The total SO_2 emissions, in tons, attributed to any NGC ~~and/or SOG~~ burning, shall be the sum of the previous NCG ~~and/or SOG~~ burning conducted during the year to date; and,
6. The burning of NCGs ~~and/or SOGs~~ shall cease when the sum of the SO_2 emissions reaches the yearly allowable limitation of ~~548.7~~ 264.9 tons.

[Permit No. AC54-163040, PCP Exclusion dated March 14, 2002; Application No. 1070005-089-AC]

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4.c. Sulfur Dioxide Emissions. NCGs ~~and/or SOGs~~ may be burned in the No. 4 Combination Boiler. For purposes of this condition, ~~SO_2 emissions due to fuel oil burning will be determined by the total gallons of fuel oil fired as follows:~~

~~(%S oil/100) x 8.2 lb/gal x 2 lb SO_2/lb S = (0.0164 x %S) lb SO_2/gal~~
~~(0.164 x %S) lb SO_2/gal x gallons of fuel oil fired = lb SO_2~~ [Per Permit No. 1070005-066-AC]

In lieu of stack testing, the facility shall maintain records of the following:

The date and time NCGs ~~/ SOGs~~ are fired in the boiler,
~~The sulfur content of the fuel oil fired,~~
~~The amount (gallons) of fuel oil fired,~~
~~The certified on-specification used oil analysis (when on-spec used oil is fired).~~ [Per Permit No. 1070005-066-AC]

SO_2 emissions report of the above data shall be submitted to the Compliance Section of the Northeast District Office on an annual basis with a frequency base date of 08/15.

[Application No. 1070005-089-AC]

Permit Being Modified: Permit No. 1070005-024-AC issued on July 2, 2004
Specific Condition Nos. B.2., B.6.a., B.6.c., B.10.

After startup, shakedown, and successful demonstration of compliance of the equipment authorized by this construction permit, the following permit conditions are revised as follows:

B.2. Methods of Operation. This boiler shall be fired with the following fuels:

- Carbonaceous fuel such as tree bark and wood fuel;
- ~~No. 6 fuel oil with a sulfur content that shall not exceed 2.35%, by weight, and on-spec used oil.~~
- Natural gas ~~as a startup fuel~~.
- The natural gas may be kept on pilot for flame safety.
- Dilute non-condensable gases (DNCGs), non-condensable gases (NCGs), ~~and/or Stripper Off-Gas (SOG)~~ during periods when the boiler is being utilized for their destruction.

[Rule 62-213.410, F.A.C.; Construction Permit No. 1070005-017-AC; PCP Exclusion dated March 14, 2002; FINAL Title V Operation Permit No. 1070005-023-AV; Permit No. 1070005-066-AC; Application No. 1070005-089-AC]

B.6.a. Sulfur Dioxide Emissions. Sulfur Dioxide emissions shall be limited to ~~a maximum sulfur content of 2.35 %, by weight, in the fuel oil,~~ ~~1784.5~~ 386.6 lbs/hr and ~~5495.8~~ 508.3 TPY. [1,2,] ~~4~~

[1] Includes SO_2 emissions due to dilute NCG (DNCG) burning of 82.6 lbs/hr and 236.3 TPY. [3]
[2] Includes ~~additional~~ SO_2 emissions due to NCG burning ~~and SOG burning~~ of ~~626.4~~ 302.4 lbs/hr and ~~548.7~~ 264.9 TPY.

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[3] The yearly allowable limitation of 236.3 TPY is applicable to either the No. 5 Power Boiler or the No. 4 Combination Boiler, or the No. 5 Power Boiler and the No. 4 Combination Boiler combined for a total of 236.3 TPY.

[4] Includes SO_2 emissions due to carbonaceous fuel burning of 1.63 lbs/hr and 7.14 TPY.

[Construction Permit No. 107005-017-AC; PCP Exclusion dated March 12, 2002; PCP Exclusion dated April 23, 2004; Permit No. 1070005-066-AC; Application No. 1070005-089-AC]

B.6.c. Sulfur Dioxide Emissions – NCG ~~and/or SOG~~s. The burning of NCGs ~~and/or SOGs~~ shall cease when the sum of the SO_2 emissions reaches the yearly allowable limitation of ~~548.7~~ 264.9 tons. When firing NCGs ~~and/or SOGs~~, SO_2 emissions shall be determined as stated in Specific Condition No. B.10.:

[Construction Permit No. 1070005-017-AC; PCP Exclusion dated March 14, 2002; PCP Exclusion dated April 23, 2004; Application No. 1070005-089-AC]

B.10. Sulfur Dioxide Emissions. ~~In lieu of stack testing, SO_2 emissions due to the burning of fuel oil shall be determined as follows:~~

~~(%S oil/100) x 8.2 lbs/gal x lb mole S/32 lbs S x lb mole SO_2/lb mole S x 64 lbs SO_2/lb mole SO_2 = (0.164 x %S) lbs SO_2/gal~~

~~(0.164 x %S) lbs SO_2/gal x gallons of fuel oil fired = lbs SO_2~~

For purposes of this condition, SO_2 emissions due to burning of NCGs will be determined as follows:

Duration of NCG burning (minutes) ÷ 60 min/hr x 302.4 lbs/hr = lbs SO_2

~~For purposes of this condition, SO_2 emissions due to burning of SOGs will be determined as follows:~~

~~Duration of SOG burning (minutes) ÷ 60 min/hr x 324.0 lbs/hr = lbs SO_2~~

For purposes of this condition, daily SO_2 emissions from the #4CB due to burning of DNCGs will be determined as follows:

(Daily production in Tons ADUP x 0.35 lbs-S /ton ADUP x 2 lbs SO_2/1lb-S) x Minutes DNCG's burned in #4CB/1440 minutes/day = lbs SO_2 / day from #4CB

A record shall be maintained for at least five years of the following:

The date, time, and duration DNCGs/NCGs~~/SOGs~~ are fired in the boiler, [1]
~~The sulfur content of the fuel oil fired (based upon a three barge rolling average),~~
~~The amount (gallons) of fuel oil fired,~~
~~The certified on-specification used oil analysis (when on-spec used oil is fired).~~

[1] The mill shall obtain this information from the plant data process information system or the Operators' DNGC Diversion log as backup to the plant data process information system.

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The total SO_2 emissions, in tons, attributed to any NCG, ~~SOG~~ and/or DNCG burning, shall be the sum of the previous NCG, ~~SOG~~ and/or DNCG burning in either the No. 4 Combination Boiler or the No. 5 Power Boiler conducted during the year to date.

A SO_2 emissions report of the above data shall be submitted to the Compliance Section of the Northeast District Office on an annual basis (by April 1 for the previous year).

[Construction Permit No. 1070005-017-AC; PCP Exclusion dated March 12, 2002; PCP Exclusion dated April 23, 2004; Permit No. 1070005-066-AC; Application No. 1070005-089-AC]

Permit Being Modified: Permit No. 1070005-066-AC issued on April 7, 2011
Specific Condition No. 3.

After startup, shakedown, and successful demonstration of compliance of the equipment authorized by this construction permit, Specific Condition No. 3 is revised as follows:

3. Authorized Fuels: After completing the modifications, the No. 4 Combination Boiler is authorized to fire bark/wood and natural gas. *{Permitting Note: The No. 4 Combination Boiler is permitted to serve as a control device to combust non-condensable gases, ~~stripper off gases~~ and dilute non-condensable gases.}*

   [Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.; Permit Nos. 1070005-017-AC, 1070005-024-AC, and 1070005-066-AC; Application No. 1070005-089-AC]

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D. EU 037 Thermal Oxidizer

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
037	Thermal Oxidizer with a wet SO2 scrubber followed by a Candle Mist Eliminator Filter for SAM reduction. *Description:* Sulfur from the LVHC NCG streams from the batch NCG system (NCGs from the Batch Digester System) is removed via a spray tower pre-scrubber prior to destruction in the Thermal Oxidizer or the backup control device, the No. 4 Combination Boiler. A second, spray tower pre-scrubber is used to remove sulfur from the LVHC NCG streams from the continuous NCG System (NCGs from the MEE system) prior to destruction in the Thermal Oxidizer or the backup control device, the No. 4 Combination Boiler. NCGs from the Turpentine Condensing system and the Condensate Stripper System are vented directly to the Thermal Oxidizer for destruction, or to the backup control device, the No. 4 Combination Boiler.

{Permitting note: This emissions unit is subject to the requirements of 40 CFR 63, Subpart S – National Emission Standards for Hazardous Air Pollutants for Pulp Mills, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; 40 CFR 60, Subpart BB – Standards of Performance for Kraft Pulp Mills; Rule 62-212.400(2)(a)2.b., F.A.C., - PCP Exemptions, and Rule 62-296.404, F.A.C. – Kraft Pulp Mills.}

EQUIPMENT

D.1. **Thermal Oxidizer – Shutdown.** After startup, shakedown, and successful demonstration of compliance of the equipment authorized by this construction permit, the Thermal Oxidizer shall be permanently shutdown. The permittee shall provide written notice of the permanent shutdown of the existing Thermal Oxidizer to the Compliance Authority.

[Rule 62-4.070(3), F.A.C., Application No. 1070005-089-AC]

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E. EU 046 Condensate Stripper System

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
046	The Condensate Stripper System consists of a stripper, which removes HAPS from collected mill condensates. Stripper off-gases are vented directly to the Thermal Oxidizer (EU 037) for destruction or to the No. 4 Combination Boiler as the secondary control device.

{Permitting note: This emissions unit is subject to the requirements of 40 CFR 63, Subpart S – National Emission Standards for Hazardous Air Pollutants for Pulp Mills, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; 40 CFR 60, Subpart BB – Standards of Performance for Kraft Pulp Mills; Rule 62-212.400(2)(a)2.b., F.A.C., - PCP Exemptions, and Rule 62-296.404, F.A.C. – Kraft Pulp Mills.}

EQUIPMENT

E.1. **<u>Condensate Stripper System – Shutdown</u>** After startup, shakedown, and successful demonstration of compliance, the existing Condensate Stripper System (Emissions Unit 046) shall be permanently shutdown. The permittee shall provide written notice of the permanent shutdown of the existing Condensate Stripper to the Compliance Authority.

[Rule 62-4.070(3), F.A.C., Application No. 1070005-089-AC]

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