



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

January 26, 2006

CERTIFIED MAIL – Return Receipt Requested

Mr. F. J. Perrett  
Environmental Manager  
Rayonier Performance Fibers LLC  
Fernandina Beach Mill  
The Foot of Gum Street  
P.O. Box 2002  
Fernandina Beach, Florida 32035-1309

RE: Request for Facility Modifications  
Air Construction Project No.: 0890004-018-AC

Dear Mr. Perrett:

One copy of the Technical Evaluation and Preliminary Determination, the Public Notice, and the Draft Air Construction Permit for the facility modifications requested for Rayonier Performance Fibers LLC's existing sulfite mill, located at The Foot of Gum Street, Nassau County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Jeffrey F. Koerner, P.E., at the above letterhead address. If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

Sincerely,

Trina L. Vielhauer  
Chief  
Bureau of Air Regulation

TLV/jfk/bm

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

## P.E. CERTIFICATION STATEMENT

### PERMITTEE

Rayonier Performance Fibers LLC  
Fernandina Beach Dissolving Sulfite Pulp Mill  
Nassau County, Florida

Draft Air Permit No. 0890004-018-AC  
Power Boiler Replacement Project  
No. 6 Batch Digester Increase

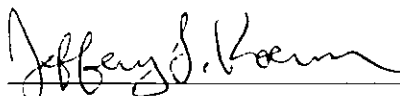
### PROJECT DESCRIPTION

The applicant requests that the digester production limit be increased from 153,205 to 162,000 ADMT per year. At a later date, the applicant intends to install a blow heat recovery system on the vent from the cooking process, which accounts for approximately 80% of the volatile organic compounds (VOC) generated from the bleaching system. The blow heat recovery system will remove approximately 60% of the VOC emissions from the cooking process vent. After the blow heat recovery system is installed, the applicant requests that the production limit be increased from 162,000 to 175,000 ADMT per year. Minor equipment changes and additions are necessary to realize the increased production levels.

The applicant also proposes to permanently shut down Power Boiler Nos. 1 – 3 and install a new bubbling bed boiler (Power Boiler No. 6) with a maximum heat input rate of 525 MMBtu per hour (450 MMBtu per hour, annual average). The new unit will primarily fire bark/wood, tire-derived fuel (TDF) as a supplemental fuel, and No. 6 residual oil as a startup and supplemental fuel. Also, small amounts of on-specification used oil generated on site will be fired for energy recovery. The "new" unit will be a refurbished coal-fired boiler with the following controls: settling chamber (ash hopper); 4-field electrostatic precipitator (ESP); alkaline wet scrubber; staged combustion; flue gas recirculation (FGR); and the capability to add Selective Non-Catalytic Reduction (SNCR) as necessary to comply with the requested NOx standard. The boiler will be subject to NSPS Subpart D, NESHAP Subpart DDDDD, Rule 62-296.410, F.A.C., and emissions caps (CO, NOx, SO<sub>2</sub>) pursuant to Rule 62-212.400(2)(g), F.A.C. (Relaxation).

The application is structured such that potential emissions from the "new" boiler net out of PSD preconstruction review due to the shutdown of the old power boilers. The combined projects net out of PSD preconstruction review based on the planned installation of additional pollution controls, requested emissions caps, and the applicant's projected actual emissions. In addition to the applicable regulations, the draft permit includes several conditions to provide reasonable assurance. See the attached Technical Evaluation and Preliminary Determination for a full discussion of the project.

*I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*



Jeffery F. Koerner, P.E.  
Registration Number: 49441

1-26-06

(Date)

**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**PROJECT**

Draft Air Construction Permit No. 0890004-018-AC  
New Power Boiler No. 6 and Digester No. 6 Project

**COUNTY**

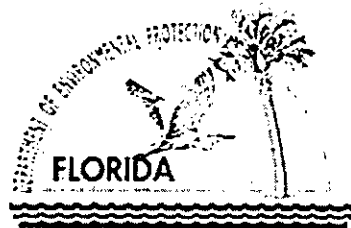
Nassau County, Florida

**APPLICANT**

Rayonier Performance Fibers LLC  
Fernandina Beach Dissolving Sulfite Pulp Mill  
ARMS Facility ID No. 0890004

**PERMITTING  
AUTHORITY**

Florida Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Air Permitting North Program



January 25, 2006

*{Filename: TEPD - Rayonier}*

## 1. GENERAL PROJECT INFORMATION

### Facility Description and Location

The applicant operates an existing Dissolving Sulfite Pulp Mill (SIC No. 2611) in Fernandina Beach at the Foot of Gum Street in Nassau County, Florida 32305. The UTM coordinates are Zone 14, 454.7 km East, and 3392.2 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

The mill uses a sulfite (ammonia-base) process to produce various grades of chemical cellulose from pine wood-chips. There are only two other pulp mills located in the United States that produce products similar to the Fernandina Mill and neither of these mills use the same type of manufacturing process. This plant produces approximately 10 different grades of cellulose each with different specifications and customers. The amount of each grade of product that is produced is based on market demand. The cellulose produced at this mill goes into such products as plastics, photographic film, LCD screens, paints, cigarette filters, pharmaceuticals, food products, cosmetics and textiles. Customers of these products have stringent quality requirements. This mill produces approximately 150,000 tons of performance fibers annually.

### Existing Process Description

The following process description of the existing facility was provided by the applicant.

The sulfite process utilizes a sulfurous acid and ammonium bisulfite cooking solution to chemically separate the lignin from the cellulose. This is accomplished in six batch pressure vessels called digesters. The "cooking" process requires approximately 6 hours. The pulp and spent cooking solution (SSL – spent sulfite liquor) are separated over vacuum washers called red stock washers. The pulp continues into the screening area while the SSL is pumped to the evaporators. The cooking solution is prepared in the "acid plant". All of the sulfur dioxide which is not captured in the acid making or emitted from the digestion and red stock washer processes is collected and scrubbed in the vent gas scrubber utilizing caustic soda. In this scrubbing tower is a second section for condensing a cooking process by-product, methanol. The methanol is condensed and sent to the effluent treatment system for biological digestion.

Unbleached sulfite pulp from the digesters has un-cooked woody materials called knots and tailings which must be screened from the pulp. Knotters and Cowan screens are utilized to remove these materials. The knots and tailings are collected and pressed for utilization as fuel in the power boilers.

Pulp exiting the screening operation enters the bleach plant. One bleaching stage is called Hot Caustic Extraction (HCE). This is a batch stage utilizing caustic soda to remove small chain cellulose molecules called hemi-cellulose from the pulp. This process uses small pressure vessels called HCE cells. No sulfur compounds are used in this stage. A spent solution washed from the pulp after this stage is called hot caustic extract (HCE) and is sold to kraft mills for its sodium content and energy value. This stage also has methanol as a by product in the vent gas, but presently it is not captured.

Pulp leaving the hot caustic stage is further purified in continuous and batch stages using peroxide, chlorine dioxide, chlorine, sodium hydroxide, and sodium hypochlorite depending on the pulp grade specifications. Following these "bleaching" stages the pulp passes through centrifugal dirt cleaners on the way to the pulp machine. The pulp machine forms the sheet by draining water from pulp slurry containing 99% water over a moving wire to a consistency of 50% water. The remainder of the water is removed by passing the pulp sheet over pressing and drying cylinders heated internally with steam. The sheet is wound on a "jumbo" roll which when completed weighs over 10 tons. The final sheet only has about 7% moisture. No coating occurs on any of the grades produced.

The jumbo rolls are transported to the finishing room where the pulp sheet is cut into smaller rolls or sheets which fit the customers' processes. The finished rolls or bales are shipped to the customer based on their order. No pulp is produced without an order due to the very specific quality requirements and sheet size for each customer.

The digestion, hot caustic extraction stage and pulp machine are high users of steam for heating. The steam is produced in three 1939 vintage power boilers utilizing bark and No. 6 oil for fuel. Steam is also used to produce about 90 percent of the mills electricity needs. The boiler's emissions are cleaned with venturi-type scrubbers.

The spent sulfite liquor (SSL) from the digestion process and the hot caustic extract (HCE) are pumped to the evaporators. From the evaporators the SSL is burned in the recovery boiler. This 1976 boiler provides steam for the evaporators and its emissions are scrubbed for sulfur dioxide removal using an ammonia solution. The ammonium bisulfite produced in the scrubber is used for cooking acid make-up. The emissions are further cleaned with mist filters that remove the ammonium sulfate particulate formed in the scrubber. Methanol from the evaporator vents is piped to condensers which collect the methanol and send it to the biological treatment system.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## Regulatory Categories

Title III: The plant is a potential major source of hazardous air pollutants (HAPs).

Title IV: The plant has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The plant is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The plant is a PSD-major facility in accordance with Rule 62-212.400, F.A.C.

NSPS: The plant operates units are subject to New Source Performance Standards in 40 CFR 60.

NESHAP: The plant operates units subject to National Emissions Standards for HAPs in 40 CFR 63.

## Project Description

The applicant proposes two changes to the plant:

1. The applicant requests that the digester production limit be increased from 153,205 to 162,000 ADMT per year. At a later date, the applicant intends to install a blow heat recovery system on the vent from the cooking process, which accounts for approximately 80% of the volatile organic compounds (VOC) generated from the bleaching system. The blow heat recovery system will remove approximately 60% of the VOC emissions from the cooking process vent. After the blow heat recovery system is installed, the applicant requests that the production limit be increased from 162,000 to 175,000 ADMT per year. To realize the requested full production level, the applicant proposes to conduct the following work: add a new HCE washer press roll; begin first improvements to pulp machine (drying and head-box); add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells; add a new HCE cell; install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and install a new post-HCE washer.
2. The applicant proposes to permanently shut down Power Boiler Nos. 1 – 3 and install a new bubbling bed boiler (Power Boiler No. 6) with a maximum heat input rate of 525 MMBtu per hour (450 MMBtu per hour, annual average). The new unit will primarily fire bark/wood, tire-derived fuel (TDF) as a supplemental fuel, and No. 6 residual oil as a startup and supplemental fuel. Also, small amounts of on-specification used oil generated on site will be fired for energy recovery. The "new" unit will be a refurbished coal-fired boiler with the following controls: settling chamber (ash hopper); 4-field electrostatic precipitator (ESP); alkaline wet scrubber; staged combustion; flue gas recirculation (FGR); and the capability to add Selective Non-Catalytic Reduction (SNCR) as necessary to comply with the requested NOx standard. The application is structured such that potential emissions from the "new" boiler net out of PSD preconstruction review due to the shutdown of the old power boilers.

Therefore, the project affects the proposed new Power Boiler No. 6 and the following existing emissions units: power boilers 1 – 3 (EUs 001, 002, and 003); digesters/pulping system (EU-005), recovery boiler (EU-006), wastewater treatment (WWT) system (EU-010); bleaching system (EU-011), and evaporators (EU-021).

## Processing Schedule

09/12/05 Received application for a minor source air pollution construction permit; incomplete.  
10/24/05 Received additional information.  
11/07/05 Received additional information.  
12/19/05 Received additional information.  
01/23/06: Received additional information; complete.

## 2. APPLICABLE REGULATIONS

### State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Review): 62-213 (Title V Air Operation Permits for Major Sources of Air Pollution); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures). Specifically, the proposed project will be subject to the following primary applicable state requirements:

### Rule 62-212.400, F.A.C. – Preconstruction Review for the Prevention of Significant Deterioration (PSD) of Air Quality

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as defined in Rule 62-212.400, F.A.C. A PSD review is required in areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit: 250 tons per year or more of any regulated air pollutant; or 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Table 62-212.400-1, F.A.C.); or 5 tons per year of lead.

For new projects at existing PSD-major facilities, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates listed in Table 62-212.400-2, F.A.C. Pollutant emissions from the proposed project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several *significant* regulated pollutants. The current project is proposed at an existing PSD-major facility. PSD applicability to the project will be discussed in the next section.

### Rule 62-296.410, F.A.C. - Carbonaceous Fuel Burning Equipment

This rule regulates emissions of particulate matter and opacity from carbonaceous fuel burning equipment. Proposed Power Boiler No. 6 was originally constructed in 1983 and had the capability of firing bark/wood. For purposes of this rule, an "existing unit" is an emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972. Therefore, Power Boiler No. 6 will be considered a "new" boiler subject to Rule 62-296.410, F.A.C.

### 62-296.406, F.A.C. - Fossil Fuel Fired Steam Generators with a Maximum Heat Input Rate of 250 MMBtu/hour

This rule regulates NOx, PM, SO<sub>2</sub>, and opacity from fossil fuel fired steam generators with a maximum heat input rate of 250 MMBtu per hour. Proposed Power Boiler No. 6 was originally constructed in 1983 and had a maximum fossil fuel heat input rate of 540 MMBtu per hour. For purposes of this rule, an "existing unit" is an emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972. Therefore, Power Boiler No. 6 will be considered a "new" boiler subject to Rule 62-296.406, F.A.C. The rule establishes the emissions standards specified in NSPS Subpart D as the applicable standards.

### **Federal Regulations**

The facility is subject to applicable federal provisions regarding air quality as established by the EPA in the Code of Federal Regulations (CFR). In general, these regulations establish either New Source Performance Standards (NSPS) for new, modified or reconstructed units or National Emissions Standards for Hazardous Air Pollutants (NESHAP) for existing, new, or reconstructed units. Existing units at the facility are subject to portions of the following regulations in 40 CFR 63: Subpart A (General Provisions); Subpart S (NESHAP for Pulp and Paper Industry); Subpart MM (NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi chemical Pulp Mills); and Subpart DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters). The proposed project will not change the regulated status of any existing unit. New Power Boiler No. 6 will be subject to the applicable requirements of NSPS Subpart DDDDD for existing units as described under the separate section of this report.

## **3. PSD APPLICABILITY REVIEW FOR PROJECT**

### **Plant History**

In the late 1990's, a digester exploded at the Stone Container Mill in Panama City, Florida. The pulp and paper industry began a program to inspect and repair (as necessary) each digester at existing plants to ensure overall safety. In 1998, the Department allowed Rayonier to install a sixth digester to allow the plant to meet current contracts while one digester was shut down for inspection and repair.

Several years later in 2002, the Department issued an after-the-fact air construction permit (No. 0890004-010-AC) that limited plant production to 153,205 air-dried metric tons (ADMT) per year, which identified the capacity of approximately 5 active digesters. Specific Condition 4 of the permit states, "If there is any increase in annual pulp production (153,205

ADMT/year) by the batch digesters, Nos. 1 thru 6, then PSD New Source Review pursuant to Rule 62-212.400(5), F.A.C., shall apply to all major SO<sub>2</sub> emissions units at the facility." Specific Condition 5 of the permit effectively limits SO<sub>2</sub> emissions from the vent gas scrubber system to 276.82 tons per year. This scrubber controls the digesters, vents from the cooking acid plant, red stock washers, unwashed stock tank, spent sulfite liquor storage tanks, spent sulfite washer area, and the blow pits. Emissions from the scrubber are monitored by CEMS. So, the intent of the restriction was to provide an opportunity for a PSD review related to increased SO<sub>2</sub> emissions from the additional digester activity.

The plant is now subject to NESHAP Subpart S in 40 CFR 63. In accordance with the MACT requirements, a condenser/scrubber system was installed in 2001 to reduce methanol (HAP) emissions from the pulping operation. The condenser/scrubber system also reduces VOC and SO<sub>2</sub> emissions.

### Regulatory Background

The applicability of PSD preconstruction review for a given project is defined in Rule 62-212.400, F.A.C. (Prevention of Significant Deterioration of Air Quality) and Rule 62-210.200, F.A.C. (Definitions). Florida's PSD preconstruction review program is currently based on EPA's original program, which compares past actual emissions to future potential emissions when determining whether an emissions increase will occur. Subsequent to a 1990 court decision (WEPCO Decision), EPA revised the federal PSD program for electric utility steam generating units to allow a comparison of past actual emissions to future representative actual emissions when determining whether an emissions increase will occur. Florida's current PSD program includes this provision for electric utility steam generating units. In 2002, EPA again revised the federal PSD regulations to allow all industries to compare baseline actual emissions to projected actual emissions when determining whether an emissions increase will occur. Florida has proposed revised rules to incorporate this change. The proposed rule changes will be finalized before the final permit for this project is issued.

### Applicant's Review

#### Digester Project

Fully utilizing the additional capacity of existing Digester No. 6 in the digester/pulping system will also require minor changes to the bleaching system, evaporators, and the WWT system. The existing recovery boiler does not require any physical changes, operational changes, or permit revisions to accommodate any increase in digester production. The permitted capacity of the recovery boiler is 70,000 lb/hour of spent sulfite liquor (SSL). The recovery boiler has repeatedly demonstrated compliance at this level. In 2003 and 2004, the recovery boiler operated at an average SSL burning rate of 68,000 lb/hour for more than 500 hours. The applicant maintains that the current permitted SSL burning rate is sufficient to address any future demand growth up to the requested production level. The unit has successfully operated at this maximum level and demonstrated compliance at this level. The applicant notes that the Department's proposed New Source Review Reform regulations state the following:

"(215) Projected Actual Emissions - The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated air pollutant in any one of the 5 years following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated air pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source. One year is one 12-month period. In determining the projected actual emissions, the Department:

- (a) Shall consider all relevant information, including historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans or orders, including consent orders; and
- (b) Shall include fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns; and
- (c) Shall exclude that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project including any increased utilization due to product demand growth; or
- (d) In lieu of using the method set out in paragraphs (a) through (c) above, may be directed by the owner or operator to use the emissions unit's potential to emit, in tons per year."

The requested digester production increase is related to an anticipated increase in market demand for the industry. Production at the Fernandina Beach plant is limited to advance orders because of the unique specifications placed on the

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

specialty fibers requested by each customer. Three similar plants in the United States have recently closed and a fourth is planning to close in 2006. The proposed changes to the digester operations will allow the plant to respond to this anticipated growth in demand for their products.

For SO<sub>2</sub> emissions, the applicant estimated baseline actual SO<sub>2</sub> emissions (2002/2003) from the recovery boiler of 836 tons per year and projected actual emissions of 1073 tons per year at full production after changes to the digester operations. The permitted allowable SO<sub>2</sub> emissions are 1409.92 tons per year. However, the applicant notes that any emissions increases from recovery boiler would be due to "demand growth" realized after the digester project. Based on the Department's proposed rules, the emissions increases from the recovery boiler may be excluded from the projected actual emissions because the unit is fully capable of accommodating the additional production without any physical, operational, or permitting changes. Excluding the difference in emissions due to future demand growth would show no emissions increases from the recovery boiler. Therefore, the project to fully utilize the digester production capacity will only affect the following existing emissions units that are actually undergoing a change: digesters/pulping system; bleaching system; evaporators; and the WWT system.

Prior to adding the 6<sup>th</sup> digester in 1998, the actual annual production was 149,957 ADMT/year in 1996 and 149,426 in 1997. The applicant used the 1996 level of production to calculate the percent increase based on the request to increase production to 162,000 ADMT/year (8% increase) and eventually to 175,000 ADMT/year (16.7% increase). The following table summarizes the emissions from the digester production increase.

Table 3A. Digester Production Increase – Applicant's PSD Netting Analysis

| Unit                           | Summary of Net Emissions Increases<br>(Tons/Year) <sup>a</sup> |                 |                  |
|--------------------------------|--|-----------------|------------------|
|                                | CO   | SO <sub>2</sub> | VOC <sup>b</sup> |
| Digesters/Pulping System       | ---  | 10.9            | 2.9 / 6.1        |
| Bleaching System               | 25.1   | ---             | 14.2 / (-41.5)   |
| Evaporators                    | ---  | ---             | 4.3 / 9.0        |
| WWT System                     | ---  | ---             | 5.3 / 11.1       |
| Total Net Change               | 25   | 11              | 27 / (-15)       |
| PSD Significant Emissions Rate | 100  | 40              | 40 / 40          |
| Subject to PSD Review?         | No   | No              | No / No          |

- a. Except for VOC, emissions increases are based on the full 16.7% production increase.
- b. For VOC, the first figure identifies future projected actual emissions based on an 8% production increase (162,000 ADMT/year) with no control from the proposed blow heat recovery system. The second figure considers the full 16.7% digester production increase (175,000 ADMT/year), but includes the proposed HCE blow heat recovery system on the bleaching plant to conservatively reduce VOC emissions by approximately 60%.
- c. Applicant based emission increases on projected actual emissions resulting from the requested production increase.

### Boiler Replacement Project

The applicant is also proposing to replace the existing three power boilers with a single new power boiler primarily due to excessive maintenance and repair costs for the older units. In addition, the proposed bubbling bed power boiler will allow the plant to fire bark/wood available from the plant as the primary fuel, which will reduce operating costs. The applicant views the two projects as separate and distinct projects that should be reviewed independently. The boiler replacement project considers the shutdown of Power Boiler Nos. 1 – 3 (EUs 001 – 003) as emissions decreases and the new Power Boiler No. 6 as emissions increases. As shown in the following table, the applicant concludes that the boiler replacement project will net out of PSD preconstruction review when considered as a separate project.



**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

Table 3B. Boiler Replacement Project – Applicant’s PSD Netting Analysis

| Unit                           | Summary of Net Emissions Increases (Tons/Year) |          |          |                   |                    |                |
|--------------------------------|--|----------|----------|-------------------|--------------------|----------------|
|                                | CO   | NOx      | PM       | PM10 <sup>b</sup> | SO <sub>2</sub>    | VOC            |
| Baseline (Power Boilers 1 – 3) | (-690.8)                                       | (-341.0) | (-276.1) | (-242.5)          | (-182.0)           | 0 <sup>a</sup> |
| Proposed Power Boiler No. 6    | 394.2  | 380.0    | 138.0    | 138               | 210.0 <sup>d</sup> | 3.9            |
| Total Net Change               | (-297) <sup>c</sup>                            | 39       | (-138)   | (-105)            | 28                 | 3.9            |
| PSD Significant Emissions Rate | 100  | 40       | 25       | 15                | 40                 | 40             |
| Subject to PSD Review?         | No   | No       | No       |                   | No                 | No             |

Notes:

- a. Applicant estimates ~ 45 tons per year from the old units, but assumed “0” because it is difficult to determine.
- b. Applicant’s estimation for PM10.
- c. Substituted applicant’s potential annual CO emission rate (394.2 tons/year) identified in the application form, which was higher than identified in applicant’s netting summary.
- d. Applicant’s information provided on 12/19/05 incorrectly included 10.9 tons/year of SO<sub>2</sub> increases from the 16.7% production increase. Accordingly, the requested cap on SO<sub>2</sub> emissions was adjusted down to 210 tons/year.

Applicant’s Conclusion

Based on the separate project reviews presented, the applicant concludes that neither the boiler replacement project nor the digester production increase project is subject to PSD preconstruction review.

**Department’s Review**

Digester Project

The digester project requires changes for the following affected units: bleaching system, evaporators, and wastewater (WWT) treatment system. CO and SO<sub>2</sub> emissions increases from these units will be minimal. Actual VOC emissions increases could exceed the PSD significant emissions rate of 40 tons/year with the full production increase to 175,000 ADMT/year. However, the plant will restrict production to 162,000 ADMT/year or less until HCE blow heat recovery system is installed, which will reduce actual emissions of methanol, VOC, and SO<sub>2</sub> emissions. Once the HCE blow heat recovery system is installed and satisfactorily tested, the plant may operate at full production capacity (175,000 ADMT/year) because this system will actually result in a decrease in VOC emissions and not an increase.

With regard to consideration of the recovery boiler, this project includes the following unique factors:

- There are 6 existing active digesters at this plant. Due to an industrial accident at another Florida plant, the Department allowed the installation of the 6<sup>th</sup> digester in 1998 as a safety/maintenance project. An after-the-fact air construction permit (Permit No. 0890004-010-AC) was issued in 2002 with a digester/pulping system production limit of 153,205 ADMT per year to ensure that the installation of the 6<sup>th</sup> digester did not allow a PSD-significant emissions increase for SO<sub>2</sub> without a PSD applicability review. The proposed project would relax this limit and requires a PSD applicability review for SO<sub>2</sub> emissions in accordance with Condition No. 4 in Permit No. 0890004-010-AC.
- To realize the increased production capacity, only minor physical and/or operational changes are needed for the digester/pulping system, bleaching system, evaporators, and the WWT system. The permittee will also install an additional condenser scrubber to remove methanol, SO<sub>2</sub>, and VOC emissions prior increasing operations to full capacity (175,000 ADMT per year). These are all affected units.
- In 2000, SO<sub>2</sub> emissions from the pulping operation were approximately 70 tons/year. A condenser/scrubber system was installed in 2001 to reduce methanol (HAP) emissions from the pulping operation pursuant to NESHAP Subpart S. Combined with a revamped scrubber system SO<sub>2</sub> emissions were also reduced. In 2004, estimated SO<sub>2</sub> emissions from the pulping operation were approximately 11 tons per year. Assuming a 16.7% increase from 2004 emissions, SO<sub>2</sub> emissions would increase approximately 2 tons/year from the pulping operation.
- The current Title V permit specifies the following capacity of the recovery boiler and SO<sub>2</sub> limits: 70,000 lb/hour of

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spent sulfite liquor (SSL): 321.9 lb of SO<sub>2</sub>/hour and 1409.92 tons of SO<sub>2</sub>/year.

- Plant records show that the recovery boiler operated near this permitted capacity for over 570 periods based on 48-hour moving averages during the 2003 – 2004 operating years. Records also indicate that the recovery boiler has demonstrated compliance near this specified capacity. No physical, operational, or permitting changes to the recovery boiler are necessary to accommodate any increase in digester production.
- The Department also reviewed previous Annual Operating Reports to compare past SO<sub>2</sub> emissions from the recovery boiler with past production levels from 1995 through 2004, as summarized in the following table.

| Year                        | 1995    | 1996    | 1997    | 1998    | 1999    | 2000    | 2001    | 2002    | 2003    | 2004    |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Production, ADMT/Yr         | 143.953 | 149.957 | 149.426 | 132.016 | 119.689 | 151.515 | 146.247 | 145.895 | 144.975 | 145.883 |
| SO <sub>2</sub> , TPY       | 1097    | 1087    | 1149    | 929     | 950     | 1067    | 829     | 1075    | 876     | 797     |
| lb SO <sub>2</sub> per ADMT | 15.2    | 14.5    | 15.4    | 14.1    | 15.9    | 14.1    | 11.3    | 14.7    | 12.1    | 10.9    |

The above table shows that there is not a direct, linear correlation between production and SO<sub>2</sub> emissions from the recovery boiler. There are other important factors influencing emissions such as wood material availability, fuel availability, actual fuel sulfur content, SO<sub>2</sub> removal in the scrubber, etc. The table also shows a general trend of decreasing SO<sub>2</sub> emissions from the recovery boiler. For example, baseline actual SO<sub>2</sub> emissions for 1996/1997 would be 1118 tons/year, which is actually higher than the applicant’s projected actual emissions (1073 tons/year) after the proposed project.

- The application was submitted in September of 2005. The Department anticipates a final version of its New Source Review Reform regulations in February of 2006. Under the new regulations, an applicant may compare projected actual emissions to baseline actual emissions from an existing unit. In determining the projected actual emissions, the new regulation states that the Department shall exclude that portion of the unit’s emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project including any increased utilization due to product demand growth. As indicated above, the recovery boiler is physically capable of accommodating any increase due to demand growth and is not otherwise restricted by permit condition. Based on the proposed regulations, the project would not trigger PSD preconstruction review.

Rule 62-210.200(11)(b), F.A.C. states, “The Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit provided that, for any regulated air pollutant, such unit-specific allowable emissions limits are federally enforceable.” The Department uses this discretion with care and previous instances have been infrequent. However, this project presents unique circumstances as described above, particularly with regard to timing of the pending rule changes which would show no PSD-significant emissions increase. To satisfy current regulations at the time of issuance for the draft permit and acknowledging that the proposed regulations will be in effect when the final permit is issued, the Department presumes actual SO<sub>2</sub> emissions from the recovery boiler to be equivalent to the unit-specific allowable emissions (1409.92 tons/year) before the project as well as after the project. Therefore, there is no increase in SO<sub>2</sub> emissions from the recovery boiler. For purposes of Condition No. 4 in Permit No. 0890004-010-AC increasing the digester production limit to 175,000 ADMT per year will not result in a PSD-significant net SO<sub>2</sub> emissions increase.

**Boiler Replacement Project**

As shown in the applicant’s netting analysis, the new bubbling bed Power Boiler No. 6 is expected to result in actual decreases for CO, PM/PM<sub>10</sub>, and VOC emissions compared to the old power boilers. CO, NO<sub>x</sub> and SO<sub>2</sub> emissions from the new boiler will be capped by federally enforceable emissions limits with compliance demonstrated by Continuous Emissions Monitoring Systems (CEMS). The old power boilers are regulated only for PM and SO<sub>2</sub> emissions. The following table provides a comparison of the allowable PM and SO<sub>2</sub> emissions from the existing power boilers to the new replacement power boiler.

Table 3C. Comparison of Allowable Emissions from Boilers

| Emissions       | Power Boiler 1 | Power Boiler 2 | Power Boiler 3 | Total, 1-3 | Power Boiler 6 |
|-----------------|----------------|----------------|----------------|------------|----------------|
| PM              | 70.0           | 212.5          | 212.5          | 495.0      | 138.0          |
| SO <sub>2</sub> | 1848.0         | 1756.0         | 1928.0         | 1928.0     | 210.0          |

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## Conclusion

The Department also reviewed the state database (ARMS) and found the following three contemporaneous projects permitted within the last 5 years.

- Project No. 080004-014-AC authorized a temporary period to test and calibrate a new type of beta attenuation particulate monitor. The test lasted just a few days and any particulate matter emissions increases would have been quite small. It is also noted that the proposed project will result in a decrease in particulate matter emissions.
- Project No. 080004-015-AC involved the three existing power boilers. However, actual emissions from these units are already presented in the netting table for the current project.
- Project No. 080004-017-AC imposed the new Subpart MM requirements for the recovery boiler and authorized the firing of small amounts of on-specification used oil fuel generated on site. Used oil fuel would displace residual oil and there were no identifiable emissions increases.

Based on the above discussion, only the proposed digester project and the proposed boiler replacement project are contemporaneous. At the Department's request, the applicant provided the following net emissions summary of the combined projects.

Table 3D. Combined PSD Netting Analysis

| Unit                           | Summary of Net Emissions Increases (Tons/Year) |     |        |                               |                 |                  |
|--------------------------------|--|-----|--------|-------------------------------|-----------------|------------------|
|                                | CO   | NOx | PM     | PM <sub>10</sub> <sup>b</sup> | SO <sub>2</sub> | VOC <sup>a</sup> |
| Digester Project               | 25   | 0   | 0      | 0                             | 11              | 27               |
| Boiler Replacement Project     | (-297)   | 39  | (-138) | (-105)                        | 28              | 3.9              |
| Total Net Change               | (-272)   | 39  | (-138) | (-105)                        | 39              | 31               |
| PSD Significant Emissions Rate | 100  | 40  | 25     | 15                            | 40              | 40               |
| Subject to PSD Review?         | No   | No  | No     | No                            | No              | No               |

### Notes:

- Applicant assumed worst-case scenario for VOC emissions: digester production level of 162,000 ADMT/year prior to installation of HCE blow heat recovery system. VOC emissions will decrease before the full production level (175,000 ADMT/year) is realized because the HCE blow heat recovery system must be installed on the bleaching plant.
- Applicant's estimation for PM<sub>10</sub>.

Based on the above netting analysis that includes contemporaneous emissions increases and decreases, the project is not subject to PSD preconstruction review. The following sections provide additional details of the draft permit.

## 4. DIGESTER PROJECT REVIEW

### Phase I – Production Capacity of 162,000 ADMT per Year

As described below, the applicant indicates that minimal additional equipment will be needed to achieve the 162,000 ADMT/yr production increase requested for this project.

#### Post-HCE Press Roll

The mill will add a post-HCE washer press roll. There are negligible emissions expected from the press roll because there are no chemical reactions taking place; water is being physically removed from the pulp. The press roll will result in a more uniform pulp consistency from the washer and a higher solids concentration in the HCE liquor transferred from the washer to the HCE evaporators. Although this equipment will improve overall efficiency, it is probably not a necessary addition to achieve the 162,000 ADMT per year production level. However, removing additional moisture in this step will later allow the HCE evaporators to accommodate the full requested production level of 175,000 ADMT per year. Addition of the new press roll is scheduled for 2006.

HCE Evaporators

Three new evaporator modules will be added to form a new evaporator train used to thicken the additional heat caustic extract (HCE) produced by the increase in production. Condensed water from the HCE evaporators may be used as plant process water; otherwise, it will discharge directly to the water treatment plant. Vapors that are not condensed will be directed to the existing 2-stage direct contact condenser (methanol scrubber). The condensed organics from this scrubber are discharged to the wastewater treatment plant.

Wastewater Treatment (WWT) System

VOC emissions stripped to ambient air by the aerators were calculated by the "Water9" estimation software. The emission estimate assumed "no control" from the HCE stage for increasing production to 162,000 ADMT per year.

Pulp Machine

An increase in the pulp machine drying capacity will be required. This will be accomplished by upgrading the dryer can system over which the pulp passes to dry the pulp, which includes: increasing the drying steam pressure inside the cans; installing a new head-box to increase the width of the pulp web across the machine and to improve machine sheet uniformity at higher machine speeds; and upgrading the control and water-addition systems. There are no emissions associated with pulp machine operations because there is no coating and the pulp has been purified to the point there are no remaining organics to emit.

**Phase II – Increase Production Capacity to 175,000 ADMT per Year**

The applicant proposes to conduct the following additional work to achieve the full requested production capacity of 175,000 ADMT per year, including the installation of a new blow heat recovery system to ensure that the project will not be PSD-significant for VOC emissions.

HCE Cell

To achieve the full requested production level of 175,000 ADMT per year, a new HCE cell will be added to handle the increased volume of pulp. A new blow heat recovery system will be installed to control emissions from this new cell as well as all existing cells. The blow heat recovery system will be installed and operational prior to increasing production beyond the 162,000 ADMT per year rate. Preliminary plans also include an additional washer for the caustic extraction stages to maintain the purity of pulp production at the full production level of 175,000 ADMT per year. This washer would be after release and capture of VOC from the HCE blow heat recovery system and would have no sulfur dioxide or chlorine emissions.

HCE Evaporator Train

Pressing additional moisture from the HCE material will allow the HCE evaporator train to accommodate the capacity increase from 162,000 to 175,000 ADMT per year. As before, condensed water from the HCE evaporators may be used as plant process water; otherwise, it will discharge directly to the water treatment plant. Vapors that are not condensed will be directed to the existing 2-stage direct contact condenser (methanol scrubber). The condensed organics from this scrubber are discharged to the wastewater treatment plant. For the full 175,000 ADMT per year production level, the emission estimates are contingent upon installing the HCE blow heat recovery system to control VOC emissions.

Blow Heat Recovery System

The mill will install a new blow heat recovery system to ensure that the project will not be PSD-significant for VOC emissions. This system will capture blow heat from one of the bleach plant stages that is the most significant source of VOC emissions. The HCE blow heat capture system will be very similar to the systems used on Kraft digesters for the recovery of heat except it will be considerably smaller and there will be no TRS gases because there is no sulfur in the pulp at this stage. The blow gas will be condensed to extract the heat and the condensate will contain VOC from the exhaust of all HCE cells. This condensate will be discharged to the biological wastewater treatment system where it will be biologically destroyed. Emissions from the HCE blow tank have been measured. The reduction in emissions that will be achieved has been estimated at greater than 74% control of HCE blow emissions, although 60% was used in estimating emission reductions.

Pulp Machine

To achieve the full requested production level of 175,000 ADMT per year, the mill plans to further increase drying capacity of the machine by increasing drying steam pressure. Depending on the effectiveness of the initial planned improvements,

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other pulp machine upgrades may be needed such as: final-sheet cooling; Fourdrinier wire vacuum system improvements; ventilation system upgrades; and drive system enhancements. These are all non-emitting equipment.

### Wastewater Treatment (WWT) System

The amount of VOC stripped to the ambient air by the aerators was calculated by the "Water9" estimation software. For the full 175,000 ADMT per year production level, the emission estimates are contingent upon installing the HCE blow heat recovery system to control VOC emissions.

### **Schedule**

The application indicates the following preliminary schedule for commencing construction:

| Date          | Activity   |
|---------------|--|
| February 2006 | Add a new HCE washer press roll                                      |
| February 2007 | Begin first improvements to pulp machine drying and head-box         |
|               | Add a new HCE evaporator train                                       |
| February 2008 | Install a new HCE blow heat recovery system to control all HCE cells |
|               | Add a new HCE cell   |
|               | Install a new HCE washer   |
|               | Begin second improvements to pulp machine drying and speed increase  |
|               | Install a new post-HCE washer  |

It is noted that some of the later changes are contingent on the success of the earlier stages. New process flow diagrams are shown in Attachment A to this report.

### **Permit Conditions**

The draft permit will include the following conditions related to this project.

- The permittee is authorized to perform the following construction and proposed work: add a new HCE washer press roll (February 2006); begin first improvements to pulp machine drying and head-box (February 2007); add a new HCE evaporator train (February 2007); install a new HCE blow heat recovery system to control all HCE cells (February 2008); add a new HCE cell (February 2008); install a new HCE washer (February 2008); begin second improvements to pulp machine drying and speed increase (February 2008); and install a new post-HCE washer (February 2008). The dates indicated represent the preliminary schedule for construction. The permittee shall obtain prior written approval for any substantial changes to the work described above and in the application for this project.
- Within fourteen (14) days of completing each of the above stages of work, the permittee shall provide a written notice of the following: type of work; date completed; minor deviations from original proposal; and a discussion of any emissions impacts.
- Upon issuance of this permit, plant production shall not exceed 162,000 ADMT per consecutive 12 months, rolling total.
- Prior to increasing plant production beyond 162,000 ADMT per year, the permittee shall install a new HCE blow heat recovery system designed to reduce VOC emissions by 60% from all HCE cells. Upon successful completion of this system, the permittee shall conduct an engineering study to determine the effectiveness of this system in capturing and reducing VOC emissions. Within 60 days of completing the engineering study, the permittee shall submit a report summarizing: the final installed design, material flow rates, emissions, emissions capture, and emissions control.
- Upon successful completion of the new HCE blow heat recovery system and submittal of the required engineering report, plant production shall not exceed 175,000 ADMT per consecutive 12 months, rolling total.
- Attached to each required Annual Operating Report, the permittee shall provide a summary of the following to the compliance authority: a summary of work performed to date; a summary of work remaining; a preliminary schedule for completing any remaining work; and the current production capacity of the mill (ADMT per year).

## 5. REPLACEMENT BOILER PROJECT REVIEW

### Description of Boiler, Fuels and Controls

The applicant proposes to permanently shut down Power Boiler Nos. 1 – 3 and install a new bubbling bed boiler, Power Boiler No. 6. The proposed “new” boiler is a 1982 Combustion Engineering Model CE VU-40 traveling grate boiler that will be converted to a bubbling fluidized bed boiler. Initial startup of the boiler is scheduled for the end of 2006 or early 2007. It will be located adjacent to the digesters east of the mill. Once constructed and fully operational, it will be connected to the mill steam headers and the existing power boilers will cease operation and be permanently shut down. Power Boiler No. 6 and the recovery boiler will be the sole steam producers used by the mill. Eventually, the existing power boilers will be dismantled.

The design steam conditions will be 900 psig and 875° F. The maximum continuous steam production rate (24-hour average) will be 310,000 lb/hour (525 MMBtu/hour heat input). The maximum annual steam production capacity of Power Boiler No. 6 will be restricted to 265,000 lb/hour based on a 12-month rolling average (450 MMBtu/hour heat input). Power Boiler No. 6 will fire the following fuels.

- **Bark/Wood (SCC No. 10100901):** The boiler will fire bark, wood knots, and side-hill fines recovered as process byproducts. This fuel has a heating value of approximately 9 MMBtu/ton burned (wet, as fired). Bark contains approximately 50% moisture and 0.03% sulfur by weight. Wood knots and side-hill fines contain approximately 50-60% moisture and 0.4% sulfur by weight. Based on these characteristics, the maximum boiler firing rate would be 52 tons of bark/wood per hour and, of this amount, only about 5 tons per hour would come from wood knots and side-hill fines. The maximum annual bark/wood firing would be 451,425 tons per year.
- **Tire-Derived Fuel (SCC No. 10100801):** Tire-derived fuel (TDF) may be fired as a supplemental fuel. This fuel has a heating value of approximately 31 MMBtu/ton burned (as fired). TDF contains less than 1% moisture and approximately 1.85% sulfur by weight. TDF would be co-fired with bark/wood at a maximum rate hourly rate of 3 tons of TDF per hour and at a maximum annual rate of 26,159 tons per year (approximately 20% of the annual average heat input rate).
- **No. 6 Fuel Oil (SCC No. 10100401):** No. 6 fuel oil will be fired as a supplemental fuel and may include small amounts of on-specification used oil generated on site. Fuel oil will contain a maximum of 2.5% sulfur by weight. Based on a heating value of 150 MMBtu/thousand gallons burned, the maximum hourly oil firing rate will be 1400 gallons per hour and the maximum annual firing rate will be 11,927,000 gallons per year.

During the boiler conversion, the boiler furnace will be lengthened to increase flue gas residence time and provide staged combustion to inhibit NOx formation. CO and VOC emissions are expected to be minimal at 0.25 lb/MMBtu of heat input (vendor guarantee) and 0.002 lb/MMBtu of heat input (test on similar B&W unit), respectively. The converted boiler will also include flue gas recirculation (FGR) to lower NOx emissions. The applicant expects relatively low NOx emissions from this unit after the conversion. However, the original boiler includes a selective non-catalytic reduction (SNCR) system to control NOx emissions. Due to some uncertainty of the emissions characteristics after the boiler conversion, the applicant may install this equipment after initial startup to comply with the emissions standards and caps.

An SNCR system generally consists of an ammonia tank, pumps, piping, compressed air delivery, injectors, and a control system. In the SNCR process, ammonia or urea is injected into a high-temperature region without a catalyst to reduce NOx emissions to nitrogen and water vapor. The temperature region is typically maintained above 1600° F to allow the reaction to occur; otherwise the NOx reduction will be minimal and unreacted ammonia (slip) will be emitted. Also, the exhaust temperature must not exceed 2000° F or ammonia will actually be oxidized creating additional NOx emissions. For biomass-fired boilers, SNCR can reduce NOx emissions by up to 50% or more.

Particulate matter emissions are removed from the boiler exhaust with a large settling chamber followed by an electrostatic precipitator (ESP). Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system. The four-field ESP design will include collector plates with rigid electrodes. Each field will have a dedicated transformer/rectifier (T/R) set and ash hopper. Ash will be removed by a screw conveyor system. The applicant plans to install an opacity monitor following the ESP, but before the scrubber to indicate satisfactory operation of the ESP. Although the designed system is to result in greater than 99% reduction of particulate matter emissions, the applicant requests a PM emission standard of 0.07 lb/MMBtu of heat input based on NESHAP Subpart DDDDD standards for existing units and PSD netting requirements.

An induced draft fan is located between the ESP and the wet scrubber with stack. The wet scrubber will spray

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approximately 4000 gpm of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce SO<sub>2</sub> emissions. The design pressure drop across the system will be approximately 2 inches of water column. The wet scrubber will remove approximately 90% or more of SO<sub>2</sub> emissions under maximum operating conditions. The alkalinity of the ash formed from wood combustion is also expected to capture some SO<sub>2</sub> emissions. Emissions exhaust at a volumetric flow rate of 183,421 acfm and a temperature of 150° F through the wet single scrubber stack that is 10 feet in diameter and 190 feet above ground level.

### Primary Applicable Requirements

#### NSPS Subpart Db Applicability

For new Power Boiler No. 6, the applicant proposes to modify an existing traveling grate coal-fired boiler into a bubbling bed boiler as part of this project. The existing coal-fired boiler was originally constructed in 1983 at the Stone Container Panama City Mill subject to the applicable requirements in NSPS Subpart D of 40 CFR 60 for industrial boilers. The maximum heat input rate was 540 MMBtu/hour (397 MMBtu/hour from coal and 143 MMBtu/hour from bark). In 1989, EPA promulgated NSPS Subpart Db of 40 CFR 60 for industrial boilers constructed, modified or reconstructed after June 19, 1984.

The proposed Power Boiler No. 6 will have a maximum heat input rate of 525 MMBtu/hour (315 MMBtu/hour from oil and 210 MMBtu/hour from bark) and is not considered a "new" unit as defined in NSPS Subpart Db. To be considered a "modified" boiler, the maximum emissions rate of a regulated pollutant must increase. Subpart Db regulates nitrogen oxides, particulate matter, and sulfur dioxide. The following table compares the regulated emissions as originally constructed and after conversion to a bubbling bed boiler. As shown, the Power Boiler No. 6 is not considered a modified unit subject to NSPS Subpart Db.

#### NSPS Subpart Db Applicability - Modification

| Pollutant                            | Original |         | Converted |         | Modified? |
|--------------------------------------|----------|---------|-----------|---------|-----------|
|                                      | lb/MMBtu | lb/hour | lb/MMBtu  | lb/hour |           |
| NO <sub>x</sub>                      | 0.3      | 162.0   | 0.3       | 157.5   | No        |
| PM                                   | 0.1      | 54.0    | 0.07      | 36.8    | No        |
| SO <sub>2</sub> – solid fossil fuel  | 1.2      | 476.4   | NA        | NA      | NA        |
| SO <sub>2</sub> – liquid fossil fuel | 0.8      | NA      | 0.8       | 168.0   | No        |

A boiler is considered "reconstructed" if the cost of the replacement components exceed 50% of the fixed capital cost that would be required to construct a comparable new unit. Based on an engineering quote by the Kaeverner Corporation, it is estimated that a comparable new unit would cost approximately \$40 million. Based on a vendor quote, it is estimated that the cost of replacement components to convert the existing unit to a bubbling bed boiler would be approximately \$14 million. As this represents only 35% of the fixed capital costs of a comparable new unit, the boiler is not considered a reconstructed unit subject to NSPS Subpart Db.

#### NSPS Subpart D Applicability

The primary applicable requirements from NSPS Subpart D are summarized below.

##### *§ 60.42 Standard for Particulate Matter*

PM ≤ 0.10 lb/MMBtu derived from fossil fuel or fossil fuel and wood residue

Opacity ≤ 20% except for one 6-minute period per hour of not more than 27%

##### *§ 60.43 Standard for Sulfur Dioxide*

SO<sub>2</sub> ≤ 0.80 lb/MMBtu (3-hour average) derived from liquid fossil fuel or liquid fossil fuel and wood residue

##### *§ 60.44 Standard for Nitrogen Oxides*

NO<sub>x</sub> ≤ 0.30 lb per million Btu (3-hour average) derived from liquid fossil fuel or liquid fossil fuel and wood residue

##### *§ 60.45 Emission and Fuel Monitoring*

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- (a) Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, and either oxygen or carbon dioxide except as provided in paragraph (b) of this section.
- (g) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in Sec. 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:
  - (1) Opacity. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.
  - (2) Sulfur Dioxide. Excess emissions for affected facilities are defined as:
    - (i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under Sec. 60.43.
  - (3) Nitrogen Oxides. Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under Sec. 60.44.

### NESHAP Subpart DDDDD Applicability - New Power Boiler No. 6

NESHAP Subpart DDDDD applies to new, reconstructed, or existing industrial boilers. A new boiler is one that is constructed after January 13, 2003. Similar to the NSPS requirements, a boiler is considered "reconstructed" if the cost of the replacement components exceed 50% of the fixed capital cost that would be required to construct a comparable new unit. An industrial boiler that is neither new nor reconstructed is considered an existing unit.

For the subpart, "large solid fuel subcategory" includes any water-tube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Therefore, the converted Power Boiler No. 6 is subject to the applicable requirements of NSPS Subpart DDDDD as an existing, large solid fuel fired units.

The application indicates that Power Boiler No. 6 will comply with the Subpart DDDDD requirements by installing an electrostatic precipitator and an alkaline wet scrubber. The unit will be tested to demonstrate compliance with the emissions limits and work practice standards for particulate matter (in lieu of total selected metals), hydrogen chloride, and mercury. The primary applicable requirements from NESHAP Subpart AAAAA are summarized below.

#### *Table 1 to Subpart DDDDD of Part 63. Emission Limits and Work Practice Standards*

As stated in §63.7500, you must comply with the following applicable emission limits and work practice standards:

For existing large solid fuel fired boilers:

- a. Particulate Matter (or Total Selected Metals)  $\leq$  0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).
- b. Hydrogen Chloride  $\leq$  0.09 lb per MMBtu of heat input.
- c. Mercury  $\leq$  0.000009 lb per MMBtu of heat input.

#### *Table 2 to Subpart DDDDD of Part 63. Operating Limits for Boilers and Process Heaters with Particulate Matter Emission Limits*

As stated in §63.7500, you must comply with the applicable operating limits:

1. Wet scrubber control:
  - a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
3. Electrostatic precipitator control
  - a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must



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maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent.

- b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.

*Table 4 to Subpart DDDDD of Part 63. Operating Limits for Boilers and Process Heaters with Hydrogen Chloride Limits*

As stated in §63.7500, you must comply with the following applicable operating limits:

1. Wet scrubber control: Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.

The applicant must also comply with the following applicable requirements in the associated NEHSAP tables based on the control devices and applicable emission standards and operating limits indicated above.

*Table 5 Subpart DDDDD of Part 63. Performance Testing Requirements (§63.7520)*

*Table 6 Subpart DDDDD of Part 63. Fuel Analysis Requirements (§63.7521)*

*Table 7 to Subpart DDDDD of Part 63. Establishing Operating Limits (§63.7520)*

*Table 8 to Subpart DDDDD of Part 63. Demonstrating Continuous Compliance (§63.7540)*

(Requires a Continuous Opacity Monitoring System.)

*Table 9 to Subpart DDDDD of Part 63. Reporting Requirements (§63.7550)*

### Rule 62-296.405, F.A.C. - Fossil Fuel Fired Steam Generators with a Maximum Heat Input Rate of 250 MMBtu/hour

This rule establishes standards for nitrogen oxides, opacity, particulate matter, and sulfur dioxide consistent with the requirements of NSPS Subpart D.

### Rule 62-296.410, F.A.C. - Carbonaceous Fuel Burning Equipment

This rule establishes the following standards for opacity and particulate matter.

Opacity  $\leq$  30% except for one 2-minute period per hour of not more than 40% as determined by DEP Method 9

PM  $\leq$  0.20 lb/MMBtu of heat input of carbonaceous fuel plus 0.1 lb/MMBtu of heat input from fossil fuel as determined by EPA Method 5

### Rule 62-212, F.A.C. – Preconstruction Review

In addition to the applicable provisions identified above, the draft permit will include the following preconstruction review requirements.

- Existing Power Boilers 1 – 3 shall cease operation and be permanently shutdown prior to the commencement of commercial operation of new Power Boiler No. 6.
- The permittee shall install, calibrate, operate, and maintain continuous emissions monitoring systems for CO, NO<sub>x</sub>, SO<sub>2</sub>, opacity, flow, and oxygen content.
- CO emissions shall not exceed 394.0 tons during any consecutive 12 months based on CEMS data. All data (including data collected during startup, shutdown, and malfunction), shall be included in the compliance demonstration for this limit. The CO standard also serves as a surrogate for minimizing VOC emissions. {Note: Avoids PSD review pursuant to Rule 62-212.400(2)(g), F.A.C.}
- NO<sub>x</sub> emissions shall not exceed 380.0 tons during any consecutive 12 months based on CEMS data. All data (including data collected during startup, shutdown, and malfunction), shall be included in the compliance demonstration for this limit. {Note: Avoids PSD review pursuant to Rule 62-212.400(2)(g), F.A.C.}
- SO<sub>2</sub> emissions shall not exceed 210.0 tons during any consecutive 12 months based on CEMS data. All data

(including data collected during startup, shutdown, and malfunction), shall be included in the compliance demonstration for this limit. {Note: Avoids PSD review pursuant to Rule 62-212.400(2)(g), F.A.C.}

- As determined by EPA Method 25A stack test, VOC emissions shall not exceed 0.002 lb/MMBtu measured as carbon. [Rule 62-4.070(3), F.A.C.]
- The maximum continuous steam production rate (24-hour average) shall not exceed 310,000 pounds per hour (525 MMBtu per hour of heat input). Initial and annual compliance testing shall be conducted within 90% of this rate. If initial tests indicate that the unit cannot achieve the specified maximum steam production rate, the air construction permit shall be revised to reflect the actual installed capacity of the unit.
- The maximum annual steam production rate shall not exceed 265,000 pounds per hour (450 MMBtu per hour of heat input) based on a 12-month rolling average basis.
- After completing construction, the permittee shall conduct a test on the new boiler to determine the actual thermal efficiency of the installed boiler.
- Maintain and submit actual annual emissions for 5 years following completion of each project phase. Emissions related to demand growth that could have been accommodated prior to the project must be shown and discussed. This requirement shall be fulfilled by submittal of a report in conjunction with the required Annual Operating Report.

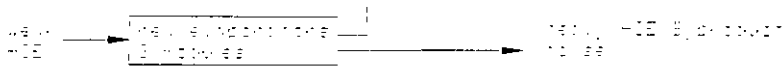
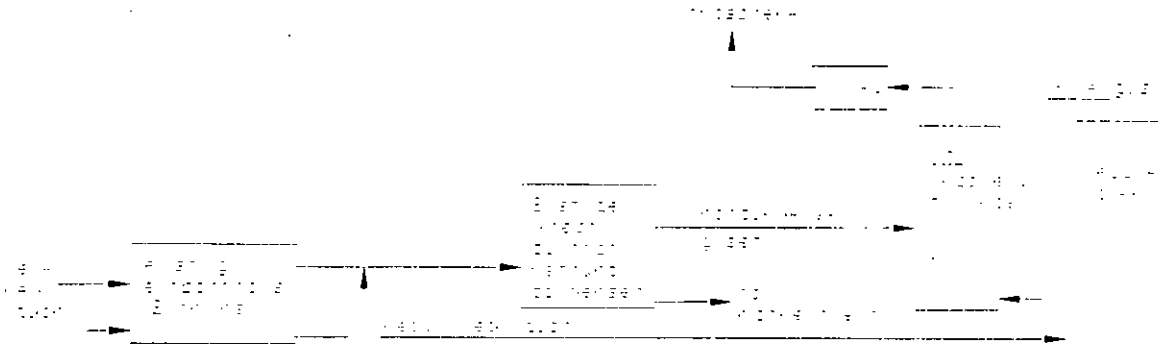
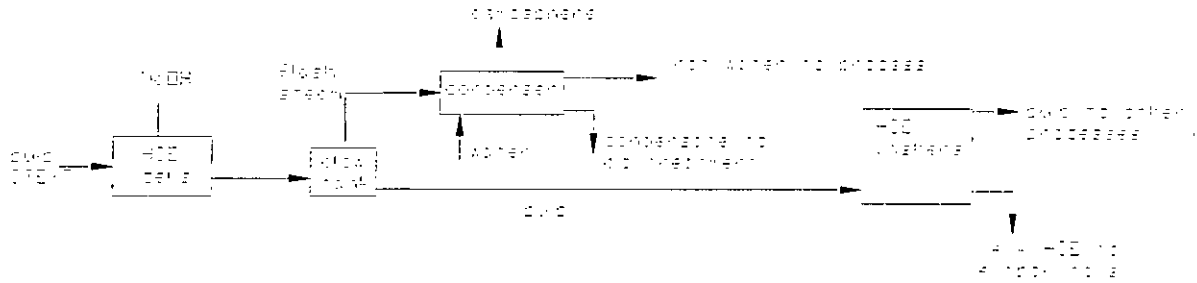
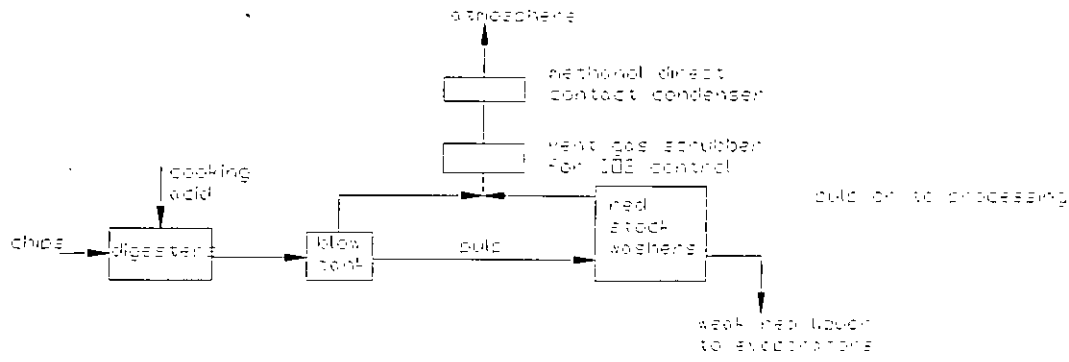
## 6. DISCUSSION OF NESHAP SUBPART S

Pursuant to § 63.440(d), existing sources must be in compliance with Subpart S no later than April 16, 2001 except as provided in paragraphs (d)(1) through (d)(3). Paragraph (d)(2) applies to the existing dissolving grade bleaching system as follows. "Each dissolving-grade bleaching system at either kraft or sulfite pulping mills shall achieve compliance with the bleach plant provisions of §63.445 of this subpart *as expeditiously as practicable*, but in no event later than 3 years after the promulgation of the revised effluent limitation guidelines and standards under 40 CFR 430.14 through 430.17 and 40 CFR 430.44 through 430.47." In the August of 2005 Federal Register, EPA stated that they would not be promulgating revised effluent limitation guidelines and standards due to the limited number of plants. Instead, EPA will provide technical assistance for each project to implement appropriate waster discharge standards. Therefore, the Department will require compliance with the corresponding air emissions standards within three years of the effective date of this air construction permit to accommodate the aspect of "as expeditiously as practicable" while providing adequate notice to the permittee.

## 7. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Bruce Mitchell is the project engineer responsible for reviewing the application and drafting the permit. Jeff Koerner is the supervising Professional Engineer. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

ATTACHMENT A



In the Matter of an  
Application for Permit by:

Rayonier Performance Fibers LLC  
The Foot of Gum Street  
Fernandina Beach, Florida 32035-1309

Draft Air Construction Permit No.: 0890004-018-AC  
Nassau County

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**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue An Air Construction Permit (copy of the Draft Air Construction Permit attached) for the facility's modifications detailed in the application specified above, for the reasons stated below.

The permittee, Rayonier Performance Fibers LLC, submitted a request on November 18, 2005, for an Air Construction (AC) Permit for facility modifications located at The Foot of Gum Street, Fernandina Beach, Nassau County.

The subject of the Air Construction Permit is to initially increase the facility's production from 153,205 to 162,000 air dried metric ton (ADMT) per consecutive 12-months, rolling total. After successful installation of a new blow heat recovery system to control VOC (volatile organic compounds) emissions from all HCE cells, production may increase to 175,000 ADMT per consecutive 12-months, rolling total. In order to achieve the increases in production, the permittee will also be authorized to perform the following construction and work: add a new HCE (hot caustic extract) washer press roll; begin first improvements to pulp machine (drying and head-box); add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells; add a new HCE cell; install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and, install a new post-HCE washer. The new #6 PB is actually an existing used PB (obtained from another mill and built in 1983) and is being altered from a pulverized coal fired PB to a fluidized-bed wood fired PB; and, the emissions unit will replace three existing fuel-oil fired PBs, Nos. 1, 2 and 3.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-212, F.A.C. This modification is not exempt from permitting procedures. The permitting authority has determined that an Air Construction Permit is required for the proposed modification.

The permitting authority intends to issue the Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Final Air Construction Permit, in accordance with the conditions of the attached Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

Persons subject to regulation pursuant to any federally ~~delegated~~ or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION**



Trina L. Vielhauer  
Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and Draft Air Construction Permit) and all copies were sent by certified mail before the close of business on 1/26/06 to the person(s) listed:

Mr. F. J. Perrett, Environmental Manager, Rayonier Performance Fibers LLC, Fernandina Beach Mill, The Foot of Gum Street, P.O. Box 2002, Fernandina Beach, Florida 32035-1309

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and Draft Air Construction Permit) were sent by U.S. mail or electronically (Received Receipt requested) on the same date to the person(s) listed:

Mr. Chris Kirts, NED

Mr. David Buff, P.E., GAI

Mr. David Tudor, Application Contact, Rayonier Performance Fibers LLC

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on This date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Mary J. Harvey 1/26/06  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0890004-018-AC

Rayonier Performance Fibers LLC  
Nassau County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit for the facility modifications requested for Rayonier Performance Fibers LLC's existing sulfite mill, located at The Foot of Gum Street, Nassau County. The applicant's name and address are: Mr. F. J. Perrett, Environmental Manager, Rayonier Performance Fibers LLC, Fernandina Beach Mill, The Foot of Gum Street, P.O. Box 2002, Fernandina Beach, Florida 32035-1309.

The subject of the Air Construction Permit is to initially increase the facility's production from 153,205 to 162,000 air dried metric ton (ADMT) per consecutive 12-months, rolling total. After successful installation of a new blow heat recovery system to control VOC (volatile organic compounds) emissions from all HCE (hot caustic extract) cells, production may increase to 175,000 ADMT per consecutive 12-months, rolling total. In order to achieve the increases in production, the permittee will also be authorized to perform the following construction and work: add a new HCE washer press roll; begin first improvements to pulp machine (drying and head-box); add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells; add a new HCE cell; install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and, install a new post-HCE washer. The new #6 PB is actually an existing used PB (obtained from another mill and built in 1983) and is being altered from a pulverized coal fired PB to a fluidized-bed wood fired PB; and, the emissions unit will replace three existing fuel-oil fired PBs, Nos. 1, 2 and 3.

Based on the application and conditions of the draft permit, the project is not subject to preconstruction review for the Prevention of Significant Deterioration (PSD), Rule 62-212.400, F.A.C. The application is structured such that potential emissions from the "new" boiler net out of PSD preconstruction review due to the shutdown of the old power boilers. The combined projects net out of PSD preconstruction review based on the planned installation of additional pollution controls, requested emissions caps, and the applicant's projected actual emissions.

The permitting authority will issue the Final Air Construction Permit in accordance with the conditions of the Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-



2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

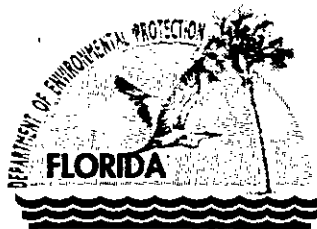
Permitting Authority:

Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Affected District:

Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite 200-B  
Jacksonville, Florida 32202  
Telephone: 904/807-3300  
Fax: 904/488-4363

The complete project file includes the Technical Evaluation and Preliminary Determination and associated Draft Air Construction Permit, the application(s), and the information submitted by the facility's representative, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Jeffery F. Koerner, P.E., at the above address, or call 850/921-9536, for additional information.



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

## PERMITTEE:

Rayonier Performance Fibers, LLC  
The Foot of Gum Street  
Fernandina Beach, Florida 32035-1309

I.D. Number: 0890004  
Permit Project No.: 0890004-018-AC  
Date of Issue: Month Day, 2006  
Expiration Date: March 1, 2009  
County: Nassau  
Project: Facility Modification

This permit is issued to allow an increase in the permitted throughput capacity for the facility's operations, the construction/installation of a new #6 Power Boiler (PB), which replaces the three existing ones, and three evaporator bodies to thicken hot caustic extract (HCE), and to recognize the production of the No. 6 Batch Digester. The increase in production will occur in two stages and depends on the installation of some additional equipment. These changes will occur at the existing Rayonier Performance Fibers LLC's Fernandina Beach Dissolving Sulfite Pulp Mill located at The Foot of Gum Street, Fernandina Beach, Nassau County, Florida. UTM Coordinates: Zone 17; 454.7 km East; and, 3392.2 km North; Latitude: 30° 39' 44" North; and, Longitude: 81° 29' 03" West.

First, the initial increase in the facility's production will be from 153,205 to 162,000 air dried metric ton (ADMT) per consecutive 12-months, rolling total. After successful installation of a new blow heat recovery system to control VOC (volatile organic compounds) emissions from all HCE cells, production may increase to 175,000 ADMT per consecutive 12-months, rolling total. In order to achieve the increases in production, the permittee will also be authorized to perform the following construction and work: add a new HCE washer press roll; begin first improvements to pulp machine (drying and head-box); add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells; add a new HCE cell; install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and, install a new post-HCE washer. The new #6 PB is actually an existing used PB (obtained from another mill and built in 1983) and is being altered from a pulverized coal fired PB to a fluidized-bed wood fired PB; and, the emissions unit will replace three existing fuel-oil fired PBs, Nos. 1, 2 and 3.

STATEMENT OF BASIS: This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

## Referenced attachments made a part of this permit:

Title V Air Operation Permit: 0890004-011-AV  
Appendix SS-1, Stack Sampling Facilities  
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96  
Attachment 40 CFR 60, Subpart A  
FIGURE 1 - SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE REPORT (40 CFR 60, July 1996)  
Appendix A to 40 CFR 63, Subpart DDDDD  
Appendix B to 40 CFR 63, Subpart DDDDD  
Tables to 40 CFR 63, Subpart DDDDD

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Michael G. Cooke, Director  
Division of Air Resource Management

MGC/tlv/bm

"More Protection, Less Process"

Printed on recycled paper.

**PERMITTEE:**

Rayonier Performance Fibers, LLC  
Foot of Gum Street  
Fernandina Beach, Florida 32035-1339

Facility I.D. Number: 0890004  
Permit/Project Number: 0890004-018-AC

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy any record that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

**PERMITTEE:**

Rayonier Performance Fibers, LLC  
Foot of Gum Street  
Fernandina Beach, Florida 32035-1339

Facility I.D. Number: 0890004  
Permit/Project Number: 0890004-018-AC

**GENERAL CONDITIONS:**

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- (X) Compliance with New Source Performance Standards (NSPS)
- (X) Compliance with National Emission Standards for Hazardous Air Pollutants/ Maximum Available Control Technology (MACT)

**PERMITTEE:**

Rayonier Performance Fibers, LLC  
Foot of Gum Street  
Fernandina Beach, Florida 32035-1339

Facility I.D. Number: 0890004  
Permit/Project Number: 0890004-018-AC

**GENERAL CONDITIONS:**

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurement;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**PERMITTEE:**

Rayonier Performance Fibers, LLC  
Foot of Gum Street  
Fernandina Beach, Florida 32035-1339

Facility I.D. Number: 0890004  
Permit/Project Number: 0890004-018-AC

**SPECIFIC CONDITIONS:**

**A. No. 6 Power Boiler.**

| <u>E.U. ID No.</u> | <u>Brief Description</u>  |
|--------------------|---|
| 022                | Bubbling Fluidized Bed No. 6 Power Boiler with a Settling Chamber followed by an ESP for PM emissions control and a Wet Alkali Scrubber for SO <sub>2</sub> emissions control |

Emissions Unit 022 identifies the No. 6 Power Boiler, which is a converted existing power boiler. It will be firing mostly biomass (green bark, chips, knots and fines), tires, No. 6 fuel oil (max. sulfur content of 2.5%, by weight) and small amounts of facility-generated on-spec used oil (to be blended with the No. 6 fuel oil). The boiler was originally constructed in 1983 as a traveling grate coal-fired boiler.

The converted boiler will include staged combustion and flue gas recirculation (FGR) to reduce NOx emissions. Due to the planned conversion, there is some uncertainty associated with the emissions characteristics. A selective non-catalytic reduction (SNCR) system may be installed to control NOx emissions. This would generally consist of an ammonia tank, pumps, piping, compressed air delivery, injectors, and a control system.

Particulate matter emissions will be controlled with a large setting chamber followed by an electrostatic precipitator (ESP). Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system. The design includes a four-field ESP with collector plates and rigid electrodes. Each field will have a dedicated transformer/rectifier (T/R) set and ash hopper. Ash will be removed by a screw conveyor system.

Acid gases will be controlled by a wet alkaline scrubber located after the ESP and induced draft fan. The wet scrubber will spray approximately 4000 gpm of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce acid gas emissions. The design pressure drop across the system will be approximately 2 inches of water column. Emissions exhaust at a volumetric flow rate of 183,421 acfm and a temperature of 150° F through the single wet scrubber stack that will be approximately 10 feet in diameter and 190 feet above ground level.

{Permitting note(s): This emissions unit is regulated under: 40 CFR 60, Subpart D; and, 40 CFR 63, Subpart DDDDD (by 09/13/07), adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

**The following specific conditions apply to the emissions unit listed above:**

**General**

**A.0. General.**

a. Power Boilers Nos. 1, 2 and 3 shall be permanently shutdown once Power Boiler No. 6 becomes commercially operational and has been compliance tested.

[Rules 62-4.070(3) and 62-212.400(5), F.A.C.]

b. By September 13, 2007, Power Boiler No. 6 shall be in compliance with the requirements of 40 CFR 63, Subparts A and DDDDD (including Appendices A and B), which are a part of the Title V Air Operation Permit, No. 0890004-011-AV, and incorporated by reference.

[Rules 62-4.070(3) and 62-204.800, F.A.C.; and, 40 CFR 63.7495(b)]

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**SPECIFIC CONDITIONS:**

c. References/Acronyms.

1. SIP: Florida's State Implementation Plan.
2. NSPS: New Source Performance Standards.
3. NESHAP: National Emission Standards for Hazardous Air Pollutants.
4. AC: Air Construction Permit.
5. PSD NSR: Prevention of Significant Deterioration New Source Review.
6. CEMS: continuous emissions monitoring system.
7. COMS: continuous opacity monitoring system.

d. Unless otherwise stated, the "Administrator" is the Department's "Secretary" or its designee.

e. Control Equipment.

1. To control particulate matter, the permittee shall install a settling chamber (or equivalent) followed by a 4-field electrostatic precipitator designed to achieve at least the emissions standards specified in this permit.
2. To control acid gases, the permittee shall install a wet alkaline scrubber designed to achieve at least the emissions standards specified in this permit.
3. To control nitrogen oxides, the converted boiler shall be designed with staged combustion and include flue gas recirculation (FGR). In addition, the permittee is authorized to install (as necessary) a selective non-catalytic reduction system (SNCR) with ammonia injection to achieve at least the emissions standards specified in this permit.

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

**Operational Parameters**

A.1. Permitted Capacity. The maximum heat input rates are:

- a. The maximum continuous steam production rate, 24-hour average, is 310,000 lbs/hr based on 525 MMBtu/hr heat input. Initial and annual compliance testing shall be conducted within 90% of this permitted steam rate. If the initial compliance tests cannot be performed at this level, the AC will be modified to reflect the actual installed capacity; and,
- b. The maximum annual steam production rate is 265,000 lbs/hr based on 450 MMBtu/hr heat input. This will require recordkeeping on a 12-month rolling average basis.

[Rules 62-4.070(3), 62-204.800 and 62-212.200 (PTE), F.A.C.; and, application received September 12, 2005]

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

- a. Biomass, consisting of green bark, knots, chips and fines.
- b. Tires.
- c. No. 6 fuel oil, with a maximum sulfur content of 2.5%, by weight, during startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets.
- d. Facility-generated on-specification used oil, with a maximum sulfur content of 2.5%, by weight, and shall be blended with the No. 6 fuel oil prior to firing.

[Application received September 12, 2005; Rule 62-710.210, F.A.C.; and, 40 CFR Part 279]

A.3. Hours of Operation. The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, application received September 12, 2005]

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**SPECIFIC CONDITIONS:**

**Emission Limits and Standards**

*{Permitting Note: Unless otherwise specified, the averaging times for these specific conditions A.4. and/thru A.11. are based on the specified averaging time of the applicable test method.}*

**A.4. Particulate Matter (PM).**

a. As determined by an EPA Method 5 or 17 compliance test, PM emissions shall not exceed 0.07 lb/MMBtu heat input; nor 36.75 lbs/hr and 138.0 TPY.

[NESHAP; application received September 12, 2005; ESP design; Rule 62-4.070(3), F.A.C.; 40 CFR 63.7500(a)(1): Table 1 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #9.a.; and, 40 CFR 63.7520(b): Table 5 to Subpart DDDDD of Part 63 – Performance Testing Requirements: #1.e.]

b. As determined by an EPA Method 5 or 5B compliance test, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (1) Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel or fossil fuel and wood residue; nor 52.5 lbs/hr.

[NSPS; and, 40 CFR 60.42(a)(1)].

c. As determined by an EPA Method 5 compliance test, PM emissions shall not exceed 0.2 lb/MMBtu heat input of carbonaceous fuel plus 0.1 lb/MMBtu heat input of fossil fuel; nor 105 lbs/hr.

[SIP; and, Rule 62-296.410(2)(b)(2. and Chapter 62-297, F.A.C.)]

**A.5. Sulfur Dioxide (SO<sub>2</sub>).**

a. As determined by CEMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:

- (1) 340 nanograms per joule heat input (0.80 lb per million Btu and 420 lbs/hr) derived from liquid fossil fuel or liquid fossil fuel and wood residue, and measured as any three-hour period (arithmetic average of three contiguous one-hour periods).

[NSPS; 40 CFR 60.43(a)(1); 40 CFR 60.45(g)(2); applicant requested; and, Rule 62-212.400(2)(g), F.A.C.]

b. In order to escape PSD NSR requirements and as determined by CEMS data, SO<sub>2</sub> emissions shall not exceed 210.0 tons per consecutive 12-month rolling total. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400(2)(g), F.A.C.; application received September 12, 2005; and, supplemental information received November 7, 2005]

**A.6. Nitrogen Oxides (NO<sub>x</sub>).**

a. As determined by CEMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO<sub>2</sub>, in excess of:

- (2) 129 nanograms per joule heat input (0.30 lb per million Btu and 101.20 lbs/hr), and measured as any three-hour period (arithmetic average of three contiguous one-hour periods).

[NSPS; 40 CFR 60.44(a)(2); 40 CFR 60.45(g)(3); applicant requested; and, Rule 62-212.400(2)(g), F.A.C.]



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**SPECIFIC CONDITIONS:**

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

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

where:

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

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

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

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

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

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

c. In order to escape PSD NSR requirements and as determined by CEMS data, NO<sub>x</sub> emissions shall not exceed 380.0 tons per consecutive 12-month rolling total. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[NSPS; applicant requested; 40 CFR 60.45(g); and, Rule 62-212.400(2)(g), F.A.C.]

**A.7. Carbon Monoxide (CO).** As determined by CEMS data, CO emissions shall not exceed 0.2 lb/MMBtu heat input; nor 105 lbs/hr and 394.2 tons per consecutive 12-month rolling total. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, application and design received September 12, 2005]

**A.8. Volatile Organic Compounds (VOC).** As determined by an EPA Method 25A compliance test, VOC emissions shall not exceed 0.002 lb/MMBtu heat input; nor 1.05 lbs/hr and 3.94 TPY.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; application received September 12, 2005; and, supplemental information received November 7, 2005]

**A.9. Hydrogen Chloride.** As determined by an EPA Method 26A compliance test, hydrogen chloride emissions shall not exceed 0.09 lb/MMBtu heat input. In accordance with the NESHAP, 40 CFR 63, Subpart DDDDD requirements, the permittee shall demonstrate compliance with this standard by September 13, 2007, or within 60 days of initial startup, whichever is later.

[NESHAP; 40 CFR 63.7495(b); 40 CFR 63.7500(a)(1): Table 1 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #9.b.; and, 40 CFR 63.7520(b): Table 5 to Subpart DDDDD of Part 63 – Performance Testing Requirements: #3.e.]

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**A.10. Mercury.** As determined by an EPA Method 29 or 101A compliance test, mercury emissions shall not exceed 0.000009 lb/MMBtu heat input. In accordance with the NESHAP, 40 CFR 63, Subpart DDDDD requirements, the permittee shall demonstrate compliance with this standard by September 13, 2007, or within 60 days of initial startup, whichever is later.

[NESHAP; 40 CFR 63.7495(b); and, 40 CFR 63.7500(a)(1): Table 1 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #9.c.; 40 CFR 63.7520(b): Table 5 to Subpart DDDDD of Part 63 – Performance Testing Requirements: #4.e.; 40 CFR 60, Appendix A; and, 40 CFR 61, Appendix B]

**A.11. Visible Emissions.**

a. As determined by COMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (2) Exhibit greater than 20 percent opacity (6-minute average) except for one six-minute period per hour of not more than 27 percent opacity.

[NSPS; 40 CFR 60.42(a)(2); and, 40 CFR 60.45(g)(1)]

b. As determined by a DEP Method 9 compliance test, visible emissions shall not exceed 30 percent opacity except that a density of 40 percent opacity is permissible for not more than two minutes in any one hour.

[SIP; and, Rule 62-296.410(2)(b)1. and Chapter 62-297, F.A.C.]

**A.12. Fuel Oil Sulfur Content.** As determined by a lab analysis, the sulfur content of the as-fired No. 6 fuel oil shall not exceed 2.5 percent, by weight.

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

**A.13. "On-Specification" Used Oil.** The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

a. Only "on-specification" used oil generated by the facility shall be fired in this emissions unit. The "on-specification" used oil shall be blended with the No. 6 fuel oil prior to firing. "On-specification" used oil is defined as that which meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired. See Specific Conditions A.47. and A.48.

| <u>CONSTITUENT / PROPERTY *</u> | <u>ALLOWABLE LEVEL</u> |
|---------------------------------|------------------------|
| Arsenic                         | 5 ppm maximum          |
| Cadmium                         | 2 ppm maximum          |
| Chromium                        | 10 ppm maximum         |
| Lead                            | 100 ppm maximum        |
| Total Halogens                  | 1000 ppm maximum       |
| Flash Point                     | 100 °F minimum         |
| PCBs                            | less than 50 ppm       |

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

[40 CFR 279.11]

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b. Upon request, a certification shall be provided that the used oil (prior to blending with the No. 6 fuel oil) complies with the limits listed above, the provisions of 40 CFR 279 and 761, and shall be recorded and retained on file.

c. "On-specification" used oil may be fired as follows:

1. Any time provided the maximum concentration of PCBs is less than 2 ppm. The analysis and recordkeeping apply to each amount prior to blending even if to be blended with 90% virgin oil.
2. Only during normal operating temperature and not during startup and shutdown if the maximum concentration of  $2 \leq \text{PCB} \leq 50$  ppm.

[40 CFR 279 and 761; and, Rule 62-4.070(3), F.A.C.]

**Excess Emissions**

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

**A.14. SIP Excess Emissions – Allowed.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

**A.15. SIP Excess Emissions – Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

**A.16. NSPS Excess Emissions.** Excess emission and monitoring system performance reports shall be submitted to the Administrator for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in Sec. 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

- (1) Opacity. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.
- (2) Sulfur dioxide. Excess emissions for affected facilities are defined as:
  - (i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43.
- (3) Nitrogen oxides. Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44.

[40 CFR 60.45(g)]

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**SPECIFIC CONDITIONS:**

**Monitoring of Operations**

**A.17. Determination of Process Variables.**

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **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), F.A.C.]

**A.18. Steam Monitoring.** The permittee shall continuously monitor the steam production rate to demonstrate compliance with the requirements of this permit.

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

**A.19. Electrostatic Precipitator-Wet Scrubber Control System: PM.** By September 13, 2007, the owner or operator must maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to 40 CFR 63.7530(c) and Table 7, 40 CFR 63, Subpart DDDDD, that demonstrated compliance with the applicable emission limit for particulate matter. See Specific Condition **A.4.c.**

[40 CFR 63.7500(a)(2): Table 2 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #3.b.]

**A.20. Mercury.** By September 13, 2007, the owner or operator must comply with the following:

a. **Electrostatic Precipitator-Wet Scrubber Control System.** Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to 40 CFR 63.7530(c) and Table 7, 40 CFR 63, Subpart DDDDD, that demonstrated compliance with the applicable emission limits for mercury. See Specific Condition **A.10.**

b. **Fuel Analysis.** Maintain the fuel type or fuel mixture such that the mercury emission rates calculated according to 40 CFR 63.7530(d)(4) is less than the applicable emission limits for mercury. See Specific Condition **A.10.**

[40 CFR 63.7500(a)(2): Table 3 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #3.b. and #6, respectively]

**A.21. Hydrogen Chloride.** By September 13, 2007, the owner or operator must comply with the following:

a. **Wet Scrubber Control System:** Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to 40 CFR 63.7530(c) and Table 7, 40 CFR 63, Subpart DDDDD, that demonstrated compliance with the applicable emission limit for hydrogen chloride. See Specific Condition **A.9.**

b. **Fuel Analysis:** Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to 40 CFR 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride. See Specific Condition **A.9.**

[40 CFR 63.7500(a)(2): Table 4 to Subpart DDDDD of Part 63 – Emissions Limits and Work Practice Standards: #1 and #3, respectively]

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**SPECIFIC CONDITIONS:**

**Continuous Monitoring Requirements**

**A.22.** Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, carbon monoxide emissions and oxygen, in accordance with 40 CFR 60.13, 40 CFR 60.45, and 40 CFR 60, Appendices B and F.

[40 CFR 60.13; 40 CFR 60.45(a); 40 CFR 60, Appendices B and F; Rule 62-4.070(3), F.A.C.; and, application project No. 0890004-018-AC]

**A.23.** The owner or operator shall install, calibrate, maintain, and operate a continuous flow monitoring system in accordance with 40 CFR 60, Performance Specification 6 of Appendix B and Procedure 1 of Appendix F.

[Application project No. 0890004-018-AC; and, 40 CFR 60, Appendices B and F]

**A.24.** For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used:

- (1) Methods 6, 7, and 3B, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d).
- (2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.
- (3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

[In parts per million]

| Fossil fuel       | Span value for sulfur dioxide | Span value for nitrogen oxides |
|-------------------|-------------------------------|--------------------------------|
| Gas.....          | {1}                           | 500                            |
| Liquid.....       | 1,000                         | 500                            |
| Solid.....        | 1,500                         | 1000                           |
| Combinations..... | $1,000y + 1,500z$             | $500(x+y) + 1,000z$            |

{1} Not applicable.

where:

- x = the fraction of total heat input derived from gaseous fossil fuel, and
- y = the fraction of total heat input derived from liquid fossil fuel, and
- z = the fraction of total heat input derived from solid fossil fuel.

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

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

[40 CFR 60.45(c)]

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**SPECIFIC CONDITIONS:**

**A.25.** For any continuous monitoring system installed under 40 CFR 60.45(a), the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):

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

$$E = CF[20.9/(20.9 - \text{percent O}_2)]$$

where:

E, C, F, and % O<sub>2</sub> are determined under 40 CFR 60.45(f).

[40 CFR 60.45(e)]

**A.26.** The values used in the equation under 40 CFR 60.45(e)(1) is derived as follows:

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

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by  $4.15 \times 10^{-7}$  M ng/dscm per ppm ( $2.59 \times 10^{-9}$  M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for sulfur dioxide and 46.01 for nitrogen oxides.

(3) % O<sub>2</sub>, %CO<sub>2</sub> = oxygen or carbon dioxide volume (expressed as percent), determined with equipment specified under 40 CFR 60.45(a).

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

(iii) For liquid fossil fuels including crude, residual, and distillate oils,  $F = 2.476 \times 10^{-7}$  dscm/J (9,220 dscf/million Btu) and  $F_C = 0.384 \times 10^{-7}$  scm CO<sub>2</sub>/J (1,430 scf CO<sub>2</sub>/million Btu).

(v) For bark  $F = 2.589 \times 10^{-7}$  dscm/J (9,640 dscf/million Btu) and  $F_C = 0.500 \times 10^{-7}$  scm CO<sub>2</sub>/J (1,840 scf CO<sub>2</sub>/million Btu). For wood residue other than bark  $F = 2.492 \times 10^{-7}$  dscm/J (9,280 dscf/million Btu) and  $F_C = 0.494 \times 10^{-7}$  scm CO<sub>2</sub>/J (1,860 scf CO<sub>2</sub>/million Btu).

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or F<sub>C</sub> factor (scm CO<sub>2</sub>/J, or scf CO<sub>2</sub>/million Btu) on either basis in lieu of the F or F<sub>C</sub> factors specified in 40 CFR 60.45(f)(4):

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

$$F_C = \frac{2.0 \times 10^{-5} (\text{pct. C})}{\text{GCV (SI units)}}$$

$$F = 10^6 \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{\text{GCV (English units)}}$$

$$F_C = \frac{20.0(\%C)}{\text{GCV (SI units)}}$$

$$F_C = \frac{321 \times 10^3(\%C)}{\text{GCV (English units)}}$$

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- (i) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM method D3178-73 (Reapproved 1979), 89, or D3176-74 or 89 (solid fuels) or computed from results using ASTM method D1137-53 or 75, D1945-64, 76, 91, or 96 or D1946-77 or 90 (Reapproved 1994) (gaseous fuels) as applicable. (These five methods are incorporated by reference-see 40 CFR 60.17.)
  - (ii) GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015-77 (Reapproved 1978), 96, or D5865-98 for solid fuels and D1826-77 or 94 for gaseous fuels as applicable. (These two methods are incorporated by reference-see 40 CFR 60.17.)
  - (iii) For affected facilities which fire both fossil fuels and non-fossil fuels, the F or F<sub>C</sub> value shall be subject to the Administrator's approval.
- (6) For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or F<sub>C</sub> factors determined by paragraphs 40 CFR 60.45(f)(4) or (f)(5) shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \quad \text{or} \quad F_C = \sum_{i=1}^n X_i (F_C)_i$$

where:

X<sub>i</sub> = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)

F<sub>i</sub> or (F<sub>C</sub>)<sub>i</sub> = the applicable F or F<sub>C</sub> factor for each fuel type determined in accordance with paragraphs (f)(4) and (f)(5) of this section.

n = the number of fuels being burned in combination.

[40 CFR 60.45(f)]

**Test Methods and Procedures**

**A.27.** In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.46, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.46(d).

[40 CFR 60.46(a)]

**A.28. Boiler Thermal Efficiency.** In conjunction with the initial performance tests, the permittee shall determine the installed boiler's thermal efficiency while combusting 100% wood and also 100% fuel oil.

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

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Permit/Project Number: 0890004-018-AC

**SPECIFIC CONDITIONS:**

**A.29.** The owner or operator shall determine compliance with the particulate matter, SO<sub>2</sub>, and NO<sub>x</sub> standards in 40 CFR 60.42, 60.43, and 60.44 as follows:

(1) The emission rate (E) of particulate matter, SO<sub>2</sub>, or NO<sub>x</sub> shall be computed for each run using the following equation:

$$E = C F_d (20.9)/(20.9 - \% O_2)$$

where:

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

% O<sub>2</sub> = oxygen concentration, percent dry basis.

F<sub>d</sub> = factor as determined from Method 19.

[40 CFR 60.46(b)(1)]

**A.30. PM Emissions.**

a. For the NSPS limit, EPA Method 5 shall be used to determine the particulate matter concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and EPA Method 5B shall be used to determine the particulate matter concentration (C) after FGD systems. See Specific Condition **A.4.a.**

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

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

(iii) If the particulate run has more than 12 traverse points, the O<sub>2</sub> traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O<sub>2</sub> traverse points.

[40 CFR 60.46(b)(2)]

b. For the SIP limit, the test method for PM shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. See Specific Condition **A.4.b.**

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

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

d. A compliance test shall be conducted initially and once each federal fiscal year.

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



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**SPECIFIC CONDITIONS:**

**A.31. Sulfur Dioxide Emissions.**

a. EPA Method 6 shall be used to determine the SO<sub>2</sub> concentration.

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

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

[40 CFR 60.46(b)(4)]

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

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

**A.32. Nitrogen Oxides Emissions.**

a. EPA Method 7 shall be used to determine the NO<sub>x</sub> concentration.

(i) The sampling site and location shall be the same as for the SO<sub>2</sub> sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(ii) For each NO<sub>x</sub> sample, the emission rate correction factor, grab sampling and analysis procedure of EPA Method 3B shall be used to determine the O<sub>2</sub> concentration (%O<sub>2</sub>). The sample shall be taken simultaneously with, and at the same point as, the NO<sub>x</sub> sample.

(iii) The NO<sub>x</sub> emission rate shall be computed for each pair of NO<sub>x</sub> and O<sub>2</sub> samples. The NO<sub>x</sub> emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

[40 CFR 60.46(b)(5)]

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

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

**A.33. CO Emissions.** The test method for carbon monoxide emissions shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.]

**A.34. VOC Emissions.**

a. The test method for VOC emissions shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8.; and, once every five years for renewal.

[40 CFR 60.8; and, Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.]

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**SPECIFIC CONDITIONS:**

**A.35. Visible Emissions.**

a. For the NSPS limit, EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. Compliance shall be demonstrated by COMS. See Specific Condition A.11.a.

[40 CFR 60.11; and, 40 CFR 60.46(b)(3)]

b. For the SIP limit, the test method for visible emissions shall be DEP Method, incorporated in Chapter 62-297, F.A.C. See Specific Conditions A.11.b. and A.36.

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

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

d. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by COMS.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

**A.36. DEP Method 9.** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

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

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

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

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

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

[Rule 62-297.401, F.A.C.]

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**SPECIFIC CONDITIONS:**

- A.37. Fuel Analyses.** For Power Boiler No. 6, the following fuel sampling and analysis protocol shall be used:
- a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, by analyzing a representative sample of the blended fuel oil following each fuel delivery.
  - b. Record hourly fuel totalizer readings with calculated hourly feed rates for each fuel fired, the ratio of fuels fired, the density of each fuel, and the percent sulfur content, by weight, of each fuel.
  - c. The analyses of the No. 6 fuel oil, as received from the supplier in a bill of lading, shall include the following:
    1. Density (ASTM D 1298-80 or the latest edition).
    2. Calorific heat value in Btu per pound (ASTM D 240-76 or the latest edition).
    3. Sulfur content, by weight (ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition).
  - d. On a quarterly basis, an analyses of the wood fuel shall include the following:
    1. Calorific heat value in Btu per pound (ASTM D2015-77, or the latest edition).
    2. Moisture content (ASTM D2016-74, 83, or the latest edition).
    3. Sulfur content, by weight (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods: EPA Publication SW-846 Third Edition (November 1986), or the latest edition).

[40 CFR 60, Subpart A]

**A.38. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**A.39. Operating Rate During Testing.**

a. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

b. If the new emissions unit is unable to achieve the designed permitted capacity (at least 90%) for the initial tests, then this permit will be revised to reflect the true installed capacity.

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

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**SPECIFIC CONDITIONS:**

**A.40. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**A.41. Applicable Test Procedures.**

**(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

**(b) Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

**(c) Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

**(d) Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).

**(e) Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

**A.42. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

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**SPECIFIC CONDITIONS:**

**A.43. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant

emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

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**SPECIFIC CONDITIONS:**

**Recordkeeping and Reporting Requirements**

**A.44. Notification.**

a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's NED office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's NED.

[Rule 62-210.700(6), F.A.C.]

b. If CEMS or COMS data indicates non-compliance, the permittee shall notify the Department's NED office within one working day of such determination.

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

**A.45. Plant Operation - Problems.** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Department as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations.

[Rule 62-4.130, F.A.C.]

**A.46. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's NED on the results of each such test.

(b) The required test report shall be filed with the Department's NED as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's NED to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.

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12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**A.47.** Monthly records shall be kept of the quantity of "on-specification" used oil fired in these emissions units. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. See Specific Conditions **A.13.** and **A.48.**

[Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 279.61 and 761.20(e)]

**A.48.** The permittee shall include in the "Annual Operating Report for Air Pollutant Emitting Facility" a summary of the "on-specification" used oil fired in the No. 6 Power Boiler during the calendar year. See Specific Conditions **A.13.** and **A.47.**

[Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.49. NSPS Excess Emission and Monitoring System Performance Reports.** Excess emission and monitoring system performance reports shall be submitted to the Administrator for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in Sec. 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

- (1) **Opacity.** Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.
- (2) **Sulfur dioxide.** Excess emissions for affected facilities are defined as:
  - (i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard established under 40 CFR 60.43. See Specific Condition **A.5.a.(1).**
- (3) **Nitrogen oxides.** Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44. See Specific Condition **A.6.a.(2).**

[40 CFR 60.45(g)(1), (2) & (3)]

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**SPECIFIC CONDITIONS:**

**A.50.** Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

[40 CFR 60.8(a)]

**A.51.** Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator:

- (1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
- (2) Approves the use of an equivalent method;
- (3) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
- (4) Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard; or
- (5) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

[40 CFR 60.8(b)(1), (2), (3), (4) & (5)]

**A.52.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

**A.53.** The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

[40 CFR 60.8(d)]



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Rayonier Performance Fibers, LLC  
Foot of Gum Street  
Fernandina Beach, Florida 32035-1339

Facility I.D. Number: 0890004  
Permit/Project Number: 0890004-018-AC

**SPECIFIC CONDITIONS:**

**A.54.** The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to such facility. This includes
  - (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
  - (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4)]

**A.55.** Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8(f)]

**B. No. 6 Batch Digester.**

**B.1.** The new No. 6 batch digester is in operation and included in with the "batch digesters" under Emissions Unit 005, Vent Gas Scrubber and Direct Contact Condenser", and is subject to the terms and conditions established for this emissions unit in Title V permit, No. 0890004-011-AV, specifically in Subsection G., which is incorporated by reference.

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

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

**PERMITTEE:**

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**SPECIFIC CONDITIONS:**

**C. Multiple Effect Evaporators (3 bodies).**

C.1. The permittee is authorized to install three (3) new Multiple Effect Evaporators (MEEs) bodies, which are refurbished existing units. They will form a new train to be used to increase the solids concentration of weak HCE, a byproduct stream from the manufacturing process that can be used at Kraft mills as a sodium source. All of the MEEs will vent through a common condenser used to collect methanol and then vented to the atmosphere via the sulfur dioxide recovery scrubber for the recovery boiler. The new bodies will be lumped in with the two sets of MEEs and will now be described as "three" sets of MEEs under Emissions Unit 021, and subject to the terms and conditions established for this emissions unit in Title V permit, No. 0890004-011-AV, specifically in Subsection G., which is incorporated by reference.

{Emissions Unit 021 includes the Evaporator Vents Methanol Condenser System. The steam that is used to eject the vent gases from the two sets of multiple effect evaporators along with the evaporator vent gases themselves, are piped to a pre-condenser which condenses the steam followed by the main condenser which condenses the methanol. The water used to condense the steam and methanol is reclaimed from the biological effluent treatment system after the methanol has been digested.

The condensate from the pre-condenser and the main condenser are sewered to the biological effluent treatment system via the Number 3 Pump Station for compliance with the 40 CFR 63, Subpart S requirements.

The non-condensable gases from the main condenser are sent to the multi-stage wet scrubber/Brinks Demister at the Recovery boiler (Emissions Unit No. 006.)

**D. Facility.**

**D.1. Capacity.**

- a. Except as provided below, the facility's production shall not exceed 162,000 air dried metric tons (ADMT) per consecutive 12-months, rolling total.
- b. Upon successful installation and submittal of the engineering report of the HCE blow heat recovery system to control VOC emissions from all of the HCE cells, the facility's production shall not exceed 175,000 ADMT per consecutive 12-months, rolling total.

[Rules 62-4.070(3), 210.200(PTE) and 62-212.400(5), F.A.C.]

D.2. The application indicates the following preliminary schedule for commencing construction:

| Date          | Activity  |
|---------------|---|
| February 2006 | Add a new HCE washer press roll                                       |
| February 2007 | Begin first improvements to pulp machine (drying and head-box)        |
|               | Add a new HCE evaporator train  |
| February 2008 | Install a new HCE blow heat recovery system to control all HCE cells  |
|               | Add a new HCE cell  |
|               | Install a new HCE washer  |
|               | Begin second improvements to pulp machine (drying and speed increase) |
|               | Install a new post-HCE washer   |

\* It is noted that some of the later changes are contingent on the success of the earlier stages.

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**SPECIFIC CONDITIONS:**

**D.3.** The permittee is authorized to perform the following construction and work:

- a. add a new HCE washer press roll;
- b. begin first improvements to pulp machine (drying and head-box);
- c. add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells;
- d. add a new HCE cell;
- e. install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and,
- f. install a new post-HCE washer.

The permittee shall obtain prior written approval for any substantial changes to the work described above and in the application for this project.

**D.4.** Within fourteen (14) days of completing each of the above stages of work, the permittee shall provide a written notice of the following:

- a. type of work;
- b. date completed;
- c. deviations from original proposal; and,
- d. a discussion of any emissions impacts.

**D.5.** Attached to each required Annual Operating Report, the permittee shall provide a summary of the following to the compliance authority:

- a. a summary of work performed to date;
- b. a summary of work remaining;
- c. a preliminary schedule for completing any remaining work; and,
- d. the current production capacity of the mill (ADMT per year).

**D.6.** Performance tests.

a. Prior to increasing plant production beyond 162,000 ADMT per year, the permittee shall install a new HCE blow heat recovery system designed to reduce VOC emissions by 60% from all HCE cells. Upon successful completion of this system, the permittee shall conduct an engineering study to determine the effectiveness of this system in capturing and reducing VOC emissions to achieve designed efficiency. A test protocol shall be submitted to the Department for review and approval prior to commencing the engineering study. Within 60 days of completing the engineering study, the permittee shall submit a report summarizing: the final installed design, material flow rates, emissions, emissions capture, emissions control, and any necessary adjustments.

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

**E. Miscellaneous.**

**E.1. Report of Actual Emissions.** The permittee shall maintain and submit actual annual emissions for a period of 5 years following completion of each project phase. Emissions related to demand growth that could have been accommodated prior to the project must be shown and discussed. This requirement shall be fulfilled by submittal of a report in conjunction with the required Annual Operating Report.

[Rule 62-4.070(3) and 62-212.400(5), F.A.C.]

**E.2. Testing While Burning Tires.** A one-time test shall be conducted while burning the maximum percentage of tires expected using EPA Method 29 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.

[Rule 62-4.070(3) and Chapter 62-297, F.A.C.; and, 40 CFR 60, Appendix A]

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**SPECIFIC CONDITIONS:**

**F. Bleach Plant.**

**F.1.** The dissolving-grade bleaching system shall achieve compliance with the bleach plant provisions of 40 CFR 63.445 *as expeditiously as practicable*, but in no event later than 3 years from the issuance of this air construction permit.

[40 CFR 63.440(d)(2) and 63.445]

## Attachment "40 CFR 60, Subpart A"

### General Provisions

#### 40 CFR 60.1 Applicability.

(a) Except as provided in 40 CFR 60 subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (CAA) as amended November 15, 1990 (42 U.S.C. 7661).

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.1(a), (b) and (c)]

#### 40 CFR 60.2 Definitions.

(a) *Administrator* means the Administrator of the Environmental Protection Agency or the Secretary or the Secretary's designee.

[Rule 62-204.800(7)(a), F.A.C.; and, 40 CFR 60.2]

#### 40 CFR 60.7 Notification and record keeping.

(a) The owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:

(1) A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) A notification of the anticipated date of initial startup of an affected facility postmarked not more than 60 days nor less than 30 days prior to such date.

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

Attachment "40 CFR 60, Subpart A"

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- (6) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by 40 CFR 60.8 in lieu of Method 9 observation data as allowed by 40 CFR 60.11(e)(5) of 40 CFR 60. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) The owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see 40 CFR 60.7(d) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
  - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  - (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in Figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
  - (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

*[See Attached Figure 1-Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance]*

**Attachment "40 CFR 60, Subpart A"**

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(e) The owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

(f) If notification substantially similar to that in 40 CFR 60.7(a) is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of 40 CFR 60.7(a).

(g) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.7(a), (b), (c), (d), (e), (f) and (g)]

**40 CFR 60.8 Performance tests.**

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.8(a), (b)(1), (4) & (5), (c), (e) and (f)]

**40 CFR 60.10 State authority.**

The provisions of 40 CFR 60 shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.  
[Rule 62-204.800, F.A.C.; and; 40 CFR 60.10(a) and (b)].

**40 CFR 60.11 Compliance with standards and maintenance requirements.**

- (a) Compliance with standards in this part, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in 40 CFR 60.8 unless one of the following conditions apply. If no performance test under 40 CFR 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under 40 CFR 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in 40 CFR 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under 40 CFR 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Reference Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in 40 CFR 60.11(e)(5), the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of 40 CFR 60, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.



- (2) Except as provided in 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
- (3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in 40 CFR 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of 40 CFR 60.7(e)(1) shall apply.
- (4) The owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by 40 CFR 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and 40 CFR 60.8 performance test results.
- (5) The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.
- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by 40 CFR 60.8, the opacity observation results and observer certification required by 40 CFR 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by 40 CFR 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with 40 CFR 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.
- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.

(f) Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of 40 CFR 60.11.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.11(a), (b), (c), (d), (e), (f) and (g)]

#### **40 CFR 60.12 Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.12]

#### **40 CFR 60.13 Monitoring requirements.**

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he/she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 40 CFR 60.8 and as described in 40 CFR 60.11(e)(5), shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 40 CFR 60.8 is conducted.

(2) Except as provided in 40 CFR 60.13(c)(1), the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

- (d)(1) Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall 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.
- (2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of 40 CFR 60 shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
- (h) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorder during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases.
  - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
  - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
  - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
  - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
  - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
  - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
  - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
  - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining relative accuracy is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the relative accuracy test in section 7 of Performance Specification 2 and substitute the procedures in section 10 if the results of a performance test conducted according to the requirements in 40 CFR 60.8 of this subpart or other tests performed following the criteria in 40 CFR 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the relative accuracy test and substitute the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the relative accuracy test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).
  - (2) The waiver of a CEMS relative accuracy test will be reviewed and may be rescinded at such time following successful completion of the alternative RA procedure that the CEMS data indicate the source emissions approaching the level of the applicable standard. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., 40 CFR 60.45(g)(2) and 40 CFR 60.45(g)(3), 40 CFR 60.73(e), and 40 CFR 60.84(e)]. It is the

responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of relative accuracy testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.13(a) thru (j)].

**40 CFR 60.14 Modification.**

(a) Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr (lbs/hour) of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors", EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in 40 CFR 60.14(b)(1) does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

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- (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved.  
[Rule 62-204.800, F.A.C.; and, 40 CFR 60.14(a) thru (g)].

**40 CFR 60.15 Reconstruction.**

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
  - (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
  - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
  - (1) Name and address of the owner or operator.
  - (2) The location of the existing facility.
  - (3) A brief description of the existing facility and the components which are to be replaced.
  - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
  - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
  - (6) The estimated life of the existing facility after the replacements.
  - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by 40 CFR 60.15(d) and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under 40 CFR 60.15(e) shall be based on:
  - (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
  - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
  - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
  - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.  
[Rule 62-204.800, F.A.C.; and, 40 CFR 60.15(a) thru (g)].

## Tables to Subpart DDDDD of Part 63

**TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS**

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

| If your boiler or process heater is in this subcategory | For the following pollutants  | You must meet the following emission limits and work practice standards   |
|---|---|---|
| 1. New or reconstructed large solid fuel                | a. Particulate Matter (or Total Selected Metals).<br>b. Hydrogen Chloride<br>c. Mercury<br>d. Carbon Monoxide | 0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).<br>0.02 lb per MMBtu of heat input.<br>0.000003 lb per MMBtu of heat input.<br>400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr). |
| 2. New or reconstructed limited use solid fuel          | a. Particulate Matter (or Total Selected Metals).<br>b. Hydrogen Chloride<br>c. Mercury<br>d. Carbon Monoxide | 0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).<br>0.02 lb per MMBtu of heat input.<br>0.000003 lb per MMBtu of heat input.<br>400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).  |
| 3. New or reconstructed small solid fuel                | a. Particulate Matter (or Total Selected Metals).<br>b. Hydrogen Chloride<br>c. Mercury                       | 0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).<br>0.02 lb per MMBtu of heat input.<br>0.000003 lb per MMBtu of heat input.   |
| 4. New reconstructed large liquid fuel                  | a. Particulate Matter<br>b. Hydrogen Chloride<br>c. Carbon Monoxide   | 0.03 lb per MMBtu of heat input.<br>0.0005 lb per MMBtu of heat input.<br>400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).  |
| 5. New or reconstructed limited use liquid fuel         | a. Particulate Matter<br>b. Hydrogen Chloride<br>c. Carbon Monoxide   | 0.03 lb per MMBtu of heat input.<br>0.0009 lb per MMBtu of heat input.<br>400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).  |
| 6. New or reconstructed small liquid fuel               | a. Particulate Matter<br>b. Hydrogen Chloride   | 0.03 lb per MMBtu of heat input.<br>0.0009 lb per MMBtu of heat input.  |
| 7. New reconstructed large gaseous fuel                 | Carbon Monoxide   | 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).  |
| 8. New or reconstructed limited use gaseous fuel.       | Carbon Monoxide   | 400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).   |
| 9. Existing large solid fuel                            | a. Particulate Matter (or Total Selected Metals).<br>b. Hydrogen Chloride<br>c. Mercury                       | 0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).<br>0.09 lb per MMBtu of heat input.<br>0.000009 lb per MMBtu of heat input.   |
| 10. Existing limited use solid fuel                     | Particulate Matter (or Total Selected Metals)   | 0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).   |

**TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS**

As stated in § 63.7500, you must comply with the applicable operating limits:

| If you demonstrate compliance with applicable particulate matter emission limits using | You must meet these operating limits   |
|--|--|
| 1. Wet scrubber control  | a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.  |
| 2. Fabric filter control   | <p>a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or</p> <p>b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).</p>   |
| 3. Electrostatic precipitator control  | <p>a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or</p> <p>b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.</p> |
| 4. Any other control type  | This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).  |



**TABLE 3 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY WITH THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS**

As stated in § 63.7500, you must comply with the applicable operating limits:

| If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using | You must meet these operating limits  |
|--|---|
| 1. Wet scrubber control  | Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.   |
| 2. Fabric filter control   | <p>a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or</p> <p>b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).</p>   |
| 3. Electrostatic precipitator control  | <p>a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or</p> <p>b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.</p> |
| 4. Dry scrubber or carbon injection control  | Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.   |
| 5. Any other control type  | This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).  |
| 6. Fuel analysis   | Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to § 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.   |

**TABLE 4 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS**

As stated in § 63.7500, you must comply with the following applicable operating limits:

| If you demonstrate compliance with applicable hydrogen chloride emission limits using | You must meet these operating limits   |
|---|--|
| 1. Wet scrubber control   | Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride. |
| 2. Dry scrubber control   | Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.                                    |
| 3. Fuel analysis  | Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to § 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.   |

**TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS**

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

| To conduct a performance test for the following pollutant | You must   | Using   |
|---|--|---|
| 1. Particulate Matter                                     | a. Select sampling ports location and the number of traverse points.     | Method 1 in appendix A to part 60 of this chapter.  |
|   | b. Determine velocity and volumetric flow-rate of the stack gas.         | Method 2, 2F, or 2G in appendix A to part 60 of this chapter.   |
|   | c. Determine oxygen and carbon dioxide concentrations of the stack gas.  | Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).   |
|   | d. Measure the moisture content of the stack gas.                        | Method 4 in appendix A to part 60 of this chapter.  |
|   | e. Measure the particulate matter emission concentration.                | Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.  |
|   | f. Convert emissions concentration to lb per MMBtu emission rates.       | Method 19 F-factor methodology in appendix A to part 60 of this chapter.  |
| 2. Total selected metals                                  | a. Select sampling ports location and the number of traverse points.     | Method 1 in appendix A to part 60 of this chapter.  |
|   | b. Determine velocity and volumetric flow-rate of the stack gas.         | Method 2, 2F, or 2G in appendix A to part 60 of this chapter.   |
|   | c. Determine oxygen and carbon dioxide concentrations of the stack gas.  | Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).   |
|   | d. Measure the moisture content of the stack gas.                        | Method 4 in appendix A to part 60 of this chapter.  |
|   | e. Measure the particulate matter emission concentration.                | Method 29 in appendix A to part 60 of this chapter.   |
|   | f. Convert emissions concentration to lb per MMBtu emission rates.       | Method 19 F-factor methodology in appendix A to part 60 of this chapter.  |
| 3. Hydrogen chloride                                      | a. Select sampling ports location and the number of traverse points.     | Method 1 in appendix A to part 60 of this chapter.  |
|   | b. Determine velocity and volumetric flow-rate of the stack gas.         | Method 2, 2F, or 2G in appendix A to part 60 of this chapter.   |
|   | c. Determine oxygen and carbon dioxide concentrations of the stack gas.  | Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).   |
|   | d. Measure the moisture content of the stack gas.                        | Method 4 in appendix A to part 60 of this chapter.  |
|   | e. Measure the particulate matter emission concentration.                | Method 26 or 26A in appendix A to part 60 of this chapter.  |
|   | f. Convert emissions concentration to lb per MMBtu emission rates.       | Method 19 F-factor methodology in appendix A to part 60 of this chapter.  |
| 4. Mercury  | a. Select sampling ports location and the number of traverse points      | Method 1 in appendix A to part 60 of this chapter.  |
|   | b. Determine velocity and volumetric flow-rate of the stack gas.         | Method 2, 2F, or 2G in appendix A to part 60 of this chapter.   |
|   | c. Determine oxygen and carbon dioxide concentrations of the stack gas.  | Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 62.14(i)).   |
|   | d. Measure the moisture content of the stack gas.                        | Method 4 in appendix A to part 60 of this chapter.  |
|   | e. Measure the particulate matter emission concentration.                | Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784-02 (IBR, see § 63.14(b)). |
|   | f. Convert emissions concentration to lb per MMBtu emission rates.       | Method 19 F-factor methodology in appendix A to part 60 of this chapter.  |
| 5. Carbon Monoxide  | a. Select the sampling ports location and the number of traverse points. | Method 1 in appendix A to part 60 of this chapter.  |
|   | b. Determine oxygen and carbon dioxide concentrations of the stack gas.  | Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).   |
|   | c. Measure the moisture content of the stack gas.                        | Method 4 in appendix A to part 60 of this chapter.  |
|   | d. Measure the carbon monoxide emission concentration.                   | Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see § 63.14(b)) when the fuel is natural gas.                     |

**TABLE 6 TO SUBPART DDDDD OF PART 63—FUEL ANALYSIS REQUIREMENTS**

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

| To conduct a fuel analysis for the following pollutant | You must   | Using  |
|--|--|--|
| 1. Mercury   | a. Collect fuel samples  | Procedure in § 63.7521(c) or ASTM D2234-00 □1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323-98 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.   |
|  | b. Composite fuel samples  | Procedure in § 63.7521(d) or equivalent.   |
|  | c. Prepare composited fuel samples   | SW-846-3050B (for solid samples) or SW- 846-3020A (for liquid samples) or ASTM D2013-01 (for coal) (IBR, see § 63.14(b)) or ASTM D5198-92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent. |
|  | d. Determine heat content of the fuel type   | ASTM D5865-03a (for coal)(IBR, see § 63.14(b)) or ASTM E711-87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.  |
|  | e. Determine moisture content of the fuel type   | ASTM D3173-02 (IBR, see § 63.14(b)) or ASTM E871-82 (1998)(IBR, see § 63.14(b)) or equivalent.   |
|  | f. Measure mercury concentration in fuel sample.                                       | ASTM D3684-01 (for coal)(IBR, see § 63.14(b)) or SW-846-7471A (for solid samples) or SW-846 7470A (for liquid samples).  |
|  | g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content. |  |
| 2. Total selected metals                               | a. Collect fuel samples  | Procedure in § 63.7521(c) or ASTM D2234-00 □1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323-98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.  |
|  | b. Composite fuel samples  | Procedure in § 63.7521(d) or equivalent.   |
|  | c. Prepare composited fuel samples   | SW-846-3050B (for solid samples) or SW- 846-3020A (for liquid samples) or ASTM D2013-01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198-92 (2003)(for biomass)(IBR,see § 63.14(b)) or equivalent.    |
|  | d. Determine heat content of the fuel type   | ASTM D5865-03a (for coal)(IBR, see § 63.14(b)) or ASTM E 711-87 (for biomass)( IBR, see § 63.14(b)) or equivalent.   |
|  | e. Determine moisture content of the fuel type   | ASTM D3173-02 (IBR, see § 63.14(b)) or ASTM E871 (IBR, see § 63.14(b)) or equivalent.  |
|  | f. Measure mercury concentration in fuel sample.                                       | SW-846-6010B or ASTM D3683-94 (2000) (for coal) (IBR, see § 63.14(b)) or ASTM E885-88 (1996) (for biomass)(IBR, see § 63.14(b)).   |
|  | g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content. |  |
| 3. Hydrogen chloride                                   | a. Collect fuel samples  | Procedure in § 63.7521(c) or ASTM D2234 □1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323-98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.   |
|  | b. Composite fuel samples  | Procedure in § 63.7521(d) or equivalent.   |
|  | c. Prepare composited fuel samples   | SW-846-3050B (for solid samples) or SW- 846-3020A (for liquid samples) or ASTM D2013-01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198-92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.  |
|  | d. Determine heat content of the fuel type   | ASTM D5865-03a (for coal)(IBR, see § 63.14(b)) or ASTM E711-87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.  |
|  | e. Determine moisture content of the fuel type   | ASTM D3173-02 (IBR, see § 63.14(b)) or ASTM E871-82 (1998)(IBR, see § 63 14(b)) or equivalent.   |
|  | f. Measure mercury concentration in fuel sample.                                       | SW-846-9250 or ASTM E776-87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.   |
|  | g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content. |  |

**TABLE 7 TO SUBPART DDDDD OF PART 63—ESTABLISHING OPERATING LIMITS**

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

| If you have an applicable emission limit for              | And your operating limits are based on   | You must  | Using   | According to the following requirements   |
|---|--|---|---|---|
| 1. Particulate matter, mercury, or total selected metals. | a. Wet scrubber operating parameters.  | i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c). | (1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test. | (a) You must collect pressure drop and liquid flowrate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.                                  |
|   | b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control). | i. Establish a site-specific minimum voltage and secondary current or total power input according to § 63.7530(c).  | (1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test. | (a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run. |
| 2. Hydrogen Chloride                                      | a. Wet scrubber operating parameters.  | i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c). | (1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.                                | (a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.                       |

**TABLE 7 TO SUBPART DDDDD OF PART 63—ESTABLISHING OPERATING LIMITS**  
continued:

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

|  |  |   |  |  |
|--|--|---|--|--|
|  | <p>b. Dry scrubber operating parameters.</p> | <p>i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(c).</p> | <p>(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test.</p> | <p>(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests;<br/>(b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.</p> |
|--|--|---|--|--|

**TABLE 8 TO SUBPART DDDDD OF PART 63—DEMONSTRATING CONTINUOUS COMPLIANCE**

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

| If you must meet the following operating limits or work practice standards        | You must demonstrate continuous compliance by   |
|---|---|
| 1. Opacity  | <ul style="list-style-type: none"> <li>a. Collecting the opacity monitoring system data according to §§ 63.7525(b) and 63.7535; and</li> <li>b. Reducing the opacity monitoring data to 6-minute averages; and</li> <li>c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.</li> </ul> |
| 2. Fabric Filter Bag Leak Detection Operation                                     | Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.  |
| 3. Wet Scrubber Pressure Drop and Liquid Flow-rate                                | <ul style="list-style-type: none"> <li>a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and</li> <li>b. Reducing the data to 3-hour block averages; and</li> <li>c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(c).</li> </ul>  |
| 4. Wet Scrubber pH  | <ul style="list-style-type: none"> <li>a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and</li> <li>b. Reducing the data to 3-hour block averages; and</li> <li>c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to § 63.7530(c).</li> </ul>   |
| 5. Dry Scrubber Sorbent or Carbon Injection Rate                                  | <ul style="list-style-type: none"> <li>a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and</li> <li>b. Reducing the data to 3-hour block averages; and</li> <li>c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§ 63.7530(c).</li> </ul>   |
| 6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input. | <ul style="list-style-type: none"> <li>a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and</li> <li>b. Reducing the data to 3-hour block averages; and</li> <li>c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§ 63.7530(c).</li> </ul>                      |
| 7. Fuel Pollutant Content   | <ul style="list-style-type: none"> <li>a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.7530(c) or (d) as applicable; and</li> <li>b. Keeping monthly records of fuel use according to § 63.7540(a).</li> </ul>   |

**TABLE 9 TO SUBPART DDDDD OF PART 63.—REPORTING REQUIREMENTS**

As stated in § 63.7550, you must comply with the following requirements for reports:

| You must submit a(n)  | The report must contain   | You must submit the report  |
|---|---|---|
| 1. Compliance report  | <p>a. Information required in § 63.7550(c)(1) through (11); and</p> <p>b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and</p> <p>c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and</p> <p>d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)</p> | Semiannually according to the requirements in § 63.7550(b).   |
| 2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard. | a. Actions taken for the event; and   | i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and   |
|   | b. The information in § 63.10(d)(5)(ii)   | ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. |



Other Attachments Are Available Upon Request

# P.E. CERTIFICATION STATEMENT

## PERMITTEE

Rayonier Performance Fibers LLC  
Fernandina Beach Dissolving Sulfite Pulp Mill  
Nassau County, Florida

Draft Air Permit No. 0890004-018-AC  
Power Boiler Replacement Project  
No. 6 Batch Digester Increase

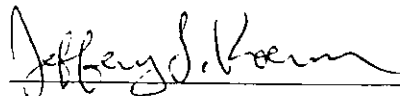
## PROJECT DESCRIPTION

The applicant requests that the digester production limit be increased from 153,205 to 162,000 ADMT per year. At a later date, the applicant intends to install a blow heat recovery system on the vent from the cooking process, which accounts for approximately 80% of the volatile organic compounds (VOC) generated from the bleaching system. The blow heat recovery system will remove approximately 60% of the VOC emissions from the cooking process vent. After the blow heat recovery system is installed, the applicant requests that the production limit be increased from 162,000 to 175,000 ADMT per year. Minor equipment changes and additions are necessary to realize the increased production levels.

The applicant also proposes to permanently shut down Power Boiler Nos. 1 – 3 and install a new bubbling bed boiler (Power Boiler No. 6) with a maximum heat input rate of 525 MMBtu per hour (450 MMBtu per hour, annual average). The new unit will primarily fire bark/wood, tire-derived fuel (TDF) as a supplemental fuel, and No. 6 residual oil as a startup and supplemental fuel. Also, small amounts of on-specification used oil generated on site will be fired for energy recovery. The "new" unit will be a refurbished coal-fired boiler with the following controls: settling chamber (ash hopper); 4-field electrostatic precipitator (ESP); alkaline wet scrubber; staged combustion; flue gas recirculation (FGR); and the capability to add Selective Non-Catalytic Reduction (SNCR) as necessary to comply with the requested NO<sub>x</sub> standard. The boiler will be subject to NSPS Subpart D, NESHAP Subpart DDDDD, Rule 62-296.410, F.A.C., and emissions caps (CO, NO<sub>x</sub>, SO<sub>2</sub>) pursuant to Rule 62-212.400(2)(g), F.A.C. (Relaxation).

The application is structured such that potential emissions from the "new" boiler net out of PSD preconstruction review due to the shutdown of the old power boilers. The combined projects net out of PSD preconstruction review based on the planned installation of additional pollution controls, requested emissions caps, and the applicant's projected actual emissions. In addition to the applicable regulations, the draft permit includes several conditions to provide reasonable assurance. See the attached Technical Evaluation and Preliminary Determination for a full discussion of the project.

*I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*



Jeffery F. Koerner, P.E.  
Registration Number: 49441

1-26-06

(Date)

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