TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Georgia-Pacific Consumer Operations, LLC
215 County Road 216
Palatka, Florida 32178-0919

Palatka Mill
Facility ID No. 1070005

PROJECT

Project No. 1070005-072-AC
Application for Minor Source Air Construction Permit
No. 4 Recovery Boiler, Floor Tube Replacement Project
New Source Review Reform Project

COUNTY

Putnam County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
Chemicals and Combustion Key Industry Group
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

January 6, 2012

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters:

Table 1 - Applicable Rules from the F.A.C.

Chapter	Description
62-4	Permits
62-204	Air Pollution Control – General Provisions
62-210	Stationary Sources of Air Pollution – General Requirements
62-212	Stationary Sources – Preconstruction Review
62-213	Operation Permits for Major Sources (Title V) of Air Pollution
62-214	Requirements for Sources Subject to the Federal (Title IV) Acid Rain Program
62-296	Stationary Sources – Emission Standards
62-297	Stationary Sources – Emissions Monitoring

The U.S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40, Code of Federal Regulations, part 60 (40 CFR 60) that identifies New Source Performance Standards (NSPS) for a variety of industrial activities. 40 CFR 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP). 40 CFR 63 specifies NESHAP provisions based on the Maximum Achievable Control Technology (MACT) for given source categories.

Federal regulations adopted by reference are given in Rule 62-204.800, F.A.C. State regulations approved by EPA are given in 40 CFR 52, Subpart K – Florida, also known as the State Implementation Plan (SIP) for Florida.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of the draft permit distributed with this evaluation.

Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Facility Description and Location

The Palatka Mill is an existing Kraft pulp and paper mill that consists of major activities areas such as: chip handling, pulping, bleaching, chemical recovery, utilities, paper machines, converting, and turpentine and tall oil production. Refer to Figures 1 and 2. The existing Palatka Mill is located in Putnam County at 215 County Road 216 in Palatka, Florida.

The pulp and paper mill is categorized under Standard Industrial Classification (SIC) Code Nos. 2611 and 2621. The UTM coordinates of the existing facility are Zone 17, 434.0 kilometers (km) East, and 3283.4 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to Ambient Air Quality Standards (AAQS).

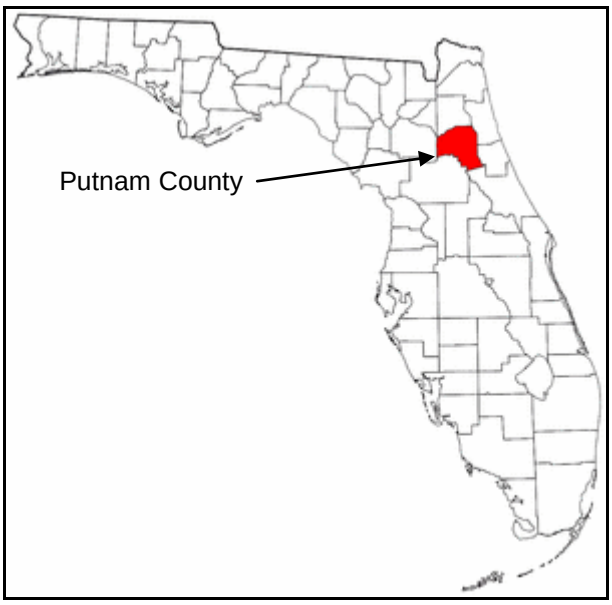

Figure 1 – Location of Putnam County, Florida

Figure 2 – Location of Palatka Mill

Application Processing Schedule

On December 22, 2011, the Department received a permit exemption analysis along with a complete application for a minor source construction permit. Link to Floor Tube Application

Process Description

Refer to Figures 3, 4 and 5. Black liquor (BL) is a by-product from the digestion of wood chips. Weak black liquor is concentrated and introduced into a special boiler known as a black liquor recovery boiler. The organic fraction is burned in stages and the energy is recovered for steam production.

The inorganic fraction containing the spent cooking chemicals (primarily sodium carbonate and sodium sulfide) is recovered as smelt from a bed of char that forms on the floor of the boiler. The smelt drains, cools and is then diluted with water to make green liquor. The green liquor is causticized with lime to make white liquor (primarily sodium hydroxide and sodium hydrosulfide) for use in the digestion of wood chips.

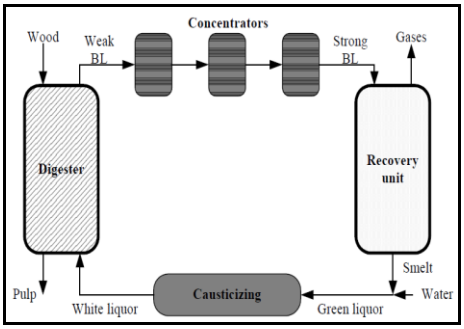

Figure 3 – Chemical, Energy Recovery

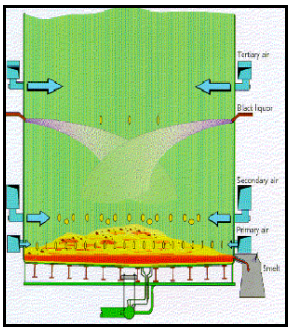

Figure 4 – Char/Smelt Bed

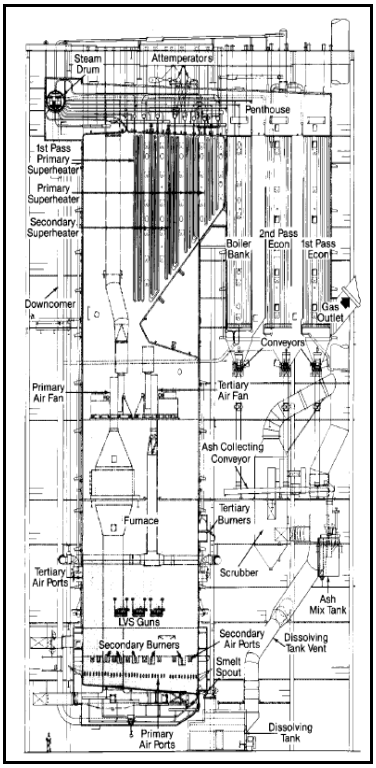

Figure 5 – A Recovery Boiler

The No. 4 Recovery Boiler (EU 018) began operation in December of 1976. The maximum operational rate of this emissions unit is 210,000 pounds per hour of black liquor solids (lb BLS/hour). This unit fires residual fuel oil for startup, shutdown and as a supplemental fuel. This boiler also continuously fires virgin, ultra low sulfur distillate fuel oil that is introduced into the piping that feeds black liquor into the No. 4 Recovery Boiler. The maximum steam production rate is 789,000 lb/hour. Particulate matter (PM) emissions are controlled by an electrostatic precipitator. This unit is equipped with continuous emissions monitoring system (CEMS) to monitor carbon monoxide (CO), nitrogen oxide (NO_X), sulfur dioxide (SO_2), total reduce sulfur (TRS) and opacity.

Recent Projects Affecting No. 4 Recovery Boiler

The unit was subject to PSD permitting (PSD-FL-171 and PSD-FL-226) as a result of modifications in the 1990's. In 2007 the Department issued permit PSD-FL-380 (1070005-038-AC) for modification of the Palatka Mill including:

- The No. 4 Power Boiler (shut down);
- The No. 5 Power Boiler (conversion to natural gas);
- The No. 4 Multiple Effect Evaporator Set (control of crystallizer and flash tank emissions);
- The No. 4 Lime Kiln (hot section and cooler tubes); and
- The No. 4 Recovery Boiler.

The key modifications to the No. 4 Recovery Boiler include:

- Addition of a fourth level of overfire air (quaternary air); and
- Replacement of tubes in the superheater, economizer, and walls of the recovery boiler.

For reference, the technical evaluation accompanying the permit PSD-FL-380 ***included floor tube replacement (presumably horizontal, like-kind)*** as part of the project, as well as, the superheater, economizer, and walls.

Proposed Project on the No. 4 Recovery Boiler

The applicant will replace the horizontally oriented floor, including tubes, on the No. 4 Recovery Boiler with an inclined floor including new, single-piece, corrosion-resistant tubes. There will be no increase in the boiler design BLS input rate or steam capacity. The project will minimize the possibility of explosive contact between smelt (chemicals) recovered on the boiler floor and possible hot steam/water leaks from the underlying tubes.

The applicant seeks concurrence by the Department with the claim that the proposed project constitutes routine maintenance, repair and replacement (RMRR) and, for that reason, is exempt from permitting. In the absence of such concurrence, the applicant requests a minor modification air construction permit to perform the work on the basis that emission increases will not trigger another PSD review.

According to the applicant, the purpose and primary result of this project is preventative in nature to maintain and assure reliable and safe function of the boiler at its current capacity. The proposed work is not intended to correct any current pattern of reduced reliability or lost production. The work is planned to coincide with the 23-day annual outage for the No. 4 Recovery Boiler beginning in April of 2012 and will cost approximately $3.45 million.

2. PERMITTING APPLICABILITY

Basic Permitting Requirements and Definitions

Rule 62-210.300(1)(a), F.A.C. states: ***Unless exempted*** *from permitting pursuant to paragraph 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant* ***shall obtain an***

appropriate permit *from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, or* ***modification*** *of the facility or emissions unit or addition of the air pollution control equipment; …… etc.*

Modification is defined in Rule 62-210.200(199) as: ***Any physical change in, change in the method of operation****, or addition to a facility which would result in* ***an increase in the actual emissions*** *of any air pollutant subject to regulation under the Act, including any not previously emitted, from any emissions unit or facility. A physical change or change in the method of operation* ***shall not include routine maintenance, repair, or replacement*** *of component parts of an emissions unit….*

Thus (except for exemptions) a two-step test is established for requirement of a permit. The test is that the project is a "physical change or operational change" **and** that it increases emissions. RMRR is essentially an exemption through its exclusion from the definition of a physical or operational change.

RMRR and its meaning has been the subject of numerous analyses and litigations over a period of more than 35 years in the federal courts. The applicant relied on a five-factor process discussed in a memorandum issued by EPA Headquarters in 1988 to EPA Region V known as the Wisconsin Electric Power Company (WEPCO) memorandum. Link to EPA WEPCO memo

The memo states that *"EPA makes a case-by-case determination by weighing the* ***nature, extent, purpose, frequency, and cost*** *of the work, as well as other relevant factors, to arrive at a common-sense finding. In this case,* ***all*** *of these factors suggest that the work required under WEPCO's life extension project appears* ***not to be "routine."*** It is noteworthy that the memo discusses a project that failed these tests and is not about a project that met the tests.

In a related decision the D.C. Circuit Court stated in 1990 *"we cannot agree that the EPA's consideration of the cost, magnitude and nature of the Port Washington project, for purposes of the modification provision of the regulations (and its "routine" exception), is somehow "preempted" by the reconstruction provisions of the regulations. The EPA's examination of these factors, therefore, was not arbitrary or capricious".* Link to D.C. Circuit WEPCO decision

The 1992 EPA regulations that implemented the WEPCO decision were incorporated into 40 CFR 52.21 and Department definitions in Rule 62-210.200, F.A.C. The implementing regulations did not address what is RMRR, but established definitions of actual emissions for electrical power plants and new classes of exemptions to PSD review for certain kinds of projects such as pollution control projects.

In 2000, EPA issued another memo in response to a Detroit Edison claim that a project to replace and reconfigure all of the blades in the high-pressure section of two turbines (to substantially increase plant efficiency and reduce maintenance costs) is RMRR. The EPA determined after a long review that the project was not RMRR and further refined its five-factor description. Again, it is noteworthy that this key memo is about a project that does not meet the five-factor test rather than about a project that does meet the test. Link to EPA Dense Pack Memo

Interestingly, EPA did *"provisionally conclude that the Dense Pack project would not be a major modification"* on the basis that the project *"appears to both reduce emissions per unit of output and not increase actual air pollution"*.

In 2003, EPA promulgated a rule in 40 CFR 52.21 that would have simplified matters by including within the meaning of RMRR the replacement of components with identical or functionally equivalent components that do **not exceed 20% of the replacement value** of the process unit and does not change its basic design parameters. Link to 40 CFR 52.21

The mentioned rule was vacated by the D.C. Circuit Court in 2006 which determined it was "contrary to the plain language of section 111(a)(4) of the (Clean Air) Act". Link to D.C. Court RMRR Decision

In response to various enforcement actions, a number of Circuit Court or Environmental Appeals Board decisions have been issued that attempted to address the issue of RMRR. These include Tennessee

Valley Authority, Ohio Edison, Southern Indiana Gas and Electric Company, Alabama Power and Duke Energy. All have some useful elements and some cases contradict others. None has yet been memorialized in any EPA regulations. The Department has not adopted any rules as a result of these decisions and did not adopt the since vacated "20%" provision in 40 CFR 52.21.

The point of this discussion is that the Department does not necessarily accept a procedure outlined in a 1988 EPA memo as definitive or complete for its own PSD applicability determinations based on the RMRR exemption to the definition of a physical or operational change. Subsequent EPA memoranda and court decisions have provided useful but incomplete and sometimes contradictory procedures for making such determinations. Instead the Department conducts its own case-by-case review without assuming prescribed procedures.

The applicant believes that the proposed No. 4 Recovery Boiler floor tube replacement project qualifies for the RMRR provision. However, recovery boiler furnaces are specifically differentiated in the literature by the category of sloped versus flat floors. For example, according to "High-Temperature Corrosion and Materials Applications", Chapter 13, Black Liquor Recovery Boilers (Lai, 2007):

"Formation of a char bed on the furnace heath during combustion of black liquor makes the recovery boiler uniquely different from fossil-fired and waste-to-energy boilers. The char bed generally consists of carbon, partially pyrolized black liquor solids, and molten and frozen smelt. ***The characteristics of char beds are different for different furnace floor designs****. The sloped (or inclined) furnace floor, such as Babcock and Wilcox boilers, and the decanting (flat) floor, such as Alstom Combustion Engineering boilers, exhibit different characteristics of char beds, etc. … For the sloped floor design, molten smelt flows from the active char bed and is collected in troughs around the perimeter of the bed and discharged through smelt spouts. For the decanting floor design, molten smelt is collected and contained by the decanting bottom of the boiler".*

Further analysis of the diagrams provided in the mentioned reference suggests not only a physical change, but also a change in the method of operation if switching from decanting to sloped floors. The shape of the char bed and the bed profiles for pyrolytic activity, inactivity, solid smelt and liquid smelt are much different for the two types of floors. The Department considers the physical and operational changes of the proposed switch to a sloped floor (including change in types of floor tubes) to be non-routine in nature.

Given that the project is not RMRR, it is still necessary to determine that it will result in an increase in actual emissions in order to conclude that it is a modification requiring a permit. The term *"actual emissions"* is defined in Rule 62-210.200(11) as:

The actual rate of emission of a pollutant from an emissions unit as determined in accordance with the following provisions:

(a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit. The Department may allow the use of a different time period upon a determination that it is more representative of the normal operation of the emissions unit. Actual emissions shall be calculated using the emissions unit's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.

(b) 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.

(c) For any emissions unit which has not begun normal operations on a particular date, actual emissions shall equal the potential emissions of the emissions unit on that date.

The applicant provided actual emissions data (in the form of baseline actual emissions) similar to the method described in paragraph (a) in the discussion further below regarding PSD applicability.

As noted above, permit PSD-FL-380 (1070005-038-AC) authorized extensive modifications of the facility including the No. 4 Recovery Boiler. Construction activities on the No. 4 Recovery Boiler initiated under permit PSD-FL-380 were not completed until 2010. The mentioned permit included unit-specific, federally-enforceable allowable emission limits pursuant to the BACT determinations.

The recent PSD review, Best Available Control Technology (BACT) determinations, and establishment of federally enforceable emission limits make the present application a candidate for consideration pursuant to paragraph (b) in lieu of paragraph (a) for establishing (past) actual emissions prior to the present floor replacement project. Since the unit has not begun normal operations following the proposed floor replacement project, future actual emissions would be calculated as provided in paragraph (c). Since no changes in emission limits are requested, such a calculation would yield no emission increase and the floor project would not be a modification as defined in Department rules.

Further discussion regarding this possible approach is given below.

PSD Permitting Requirements and Definitions

The Department regulates major stationary sources in accordance with Florida's PSD program pursuant to Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for these regulated pollutants.

Commonly addressed PSD pollutants include: CO, NO_X, SO_2, PM, PM smaller than 10 micrometers (PM_{10}), volatile organic compounds (VOC), lead (Pb), fluorides (F), sulfuric acid mist (SAM), and mercury (Hg).

Additional PSD pollutants that more common to the pulp and paper industry include: hydrogen sulfide (H_2S), TRS including H_2S, and reduced sulfur compounds (RSC) including H_2S.

Other PSD pollutants include municipal waste combustor (MWC) organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans (dioxin/furan), MWC metals measured as PM; MWC acid gases measured as SO_2 and HCl, and MSW landfill emissions as non-methane organic compounds (NMOC).

As defined in Rule 62-210.200(189)(a)1, F.A.C., a stationary source is a "major stationary source" (major PSD source) if it emits or has the potential to emit (PTE):

- 250 tons per year (tons/year) or more of any PSD pollutant; <u>or</u>
- 100 tons/year or more of any PSD pollutant <u>and</u> the facility belongs to one of the 28 listed PSD major facility categories. Link to Rule 62-210, F.A.C.

The existing facility is a major PSD source because it is *"a kraft pulp mill" and "emits, or has the potential to emit, 100 tons/year or more of any PSD pollutant."*

For major stationary sources, PSD applicability for modification projects is based on thresholds known as the significant emission rates (SER) as defined in Rule 62-210.200(275), F.A.C. Any "net emissions increase" as defined in Rule 62-210.200(204), F.A.C. of a PSD pollutant from the project that equals or exceeds the respective SER is considered "significant".

SER also means any emissions rate or any net emissions increase of a PSD pollutant associated with a major stationary source or major modification which would construct within 10 km of a Class I area and have an impact on such area equal to or greater than 1 gram per cubic meter, 24-hour average.

Although a facility may be "major" (i.e. emits or has the potential to emit 100 or 250 TPY as applicable) for only one PSD pollutant, a project must include BACT controls for any PSD pollutant that exceeds the corresponding SER given in Table 2.

Table 2 - List of Significant Emissions Rates (SER) by PSD-Pollutant [1, 2, 4]

Pollutant	SER (tons/year)	Pollutant	SER (tons/year)
CO	100	NO_X	40
PM	25	PM_{10}	15
Ozone (VOC) [3]	40	Ozone (NO_X) [3]	40
SO_2	40	Sulfuric acid mist	7
Fluorides	3	Hydrogen Sulfide (H_2S)	10
RSC including H_2S	10	TRS including H_2S	10
Lead (Pb)	0.6	Mercury (Hg)	0.1

1. Excluding those not germane to pulp and paper industry.
2. $PM_{2.5}$ is also a PSD pollutant, but a significant emission rate has not yet been defined in the Department's rules. It is regulated by its precursors and surrogates (e.g. PM/PM_{10} NH_3, SO_2 and NO_X).
3. Ozone (O_3) is regulated by its precursors (VOC and NO_X).
4. A federal significant emission rate of 75,000 tons/year for greenhouse gases (GHG) as carbon dioxide equivalent (CO_2e) exists but has not been incorporated into Department rules. The applicability to the CO_2 component of GHG emissions from bioenergy and biogenic stationary sources was recently deferred by EPA until the second half of 2014. Refer to: Link to Final CO_2 PSD Deferral .

PM smaller than 2.5 micrometers ($PM_{2.5}$) is also a federal PSD pollutant and the Department is in the process of adopting a significant emission rate of 10 tons/year. Until the rule is finalized, projects in Florida are not subject to a significant emission rate for $PM_{2.5}$. Link to $PM_{2.5}$ Rule Development

In determining whether a major modification will occur at an existing unit the Department uses the **baseline actual-to-projected actual** applicability as required in Rule 62-212.400(2). Link to Rule 62-212, F.A.C. The definitions of baseline actual and projected actual are somewhat different for these PSD major modification tests than they are for the more generalized meaning of the term "modification" previously discussed. The basic definition of **baseline actual emissions** applicable to sources other than electrical steam generators is given in Rule 62-210.200(36), F.A.C. as follows:

*(b) For an existing emissions unit, **baseline actual emissions** means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding the date a complete permit application is received by the Department, except that the 10-year period shall not include any period earlier than November 15, 1990.*

This definition is very close to the definition of actual emissions at Rule 62-210.200(11)(a), F.A.C. that was discussed above. One difference, for example, is the 24-month period versus two-years.

One of the caveats is: *(36)(b)2. The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period.*

The basic definition of **projected actual emissions** is given in Rule 62-210.200(245), F.A.C. as follows:

***Projected Actual Emissions** – The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a PSD 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 PSD 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.*

A key exclusion (deduction) when making the projected actual emissions calculation is that *in determining the projected actual emissions, the Department:*

(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.*

Also, *in determining the projected actual emissions, the Department:*

(d) *In lieu of using the method set out in paragraphs … above, may be directed by the owner or operator to use the emissions unit's potential to emit, in tons per year.*

Paragraph (d) is equivalent to that given in Rule 62-210.200(11)(c), F.A.C. discussed above when calculating actual emissions for projects that have not begun normal operations.

Project Emission Estimates

The results of the applicant's net emissions increases analyses and comparison with respective significant emissions rates are summarized in Table 3

Table 3 - Applicant's Potential and Actual Emissions Summary and PSD Applicability (tons/year)

Pollutant	Permitted Potential Emissions [a]	Baseline Actual Emissions [b]	Projected Actual Emissions [c]	CHA Excludable Emissions [d]	Net Emissions Increases [e]	Significant Emissions Rates	Subject to PSD?
CO	2,246	1,125	1,293	93	75	100	No
NO_X	738	453	513	34	26	40	No
PM	331	120	136	9	7	25	No
PM_{10}	---	92	104	7	5	15	No
$PM_{2.5}$	---	72	81	5	4	10	No
SO_2	153.9 [f]	74	92	10	8	40	No
VOC	92	18	31	1	12	40	No
TRS	34.2	8.7	9.6	0.6	0.3	10	No
SAM	15.9	4.4	5.0	0.3	0.3	7	No
Lead	---	0.0041	0.0046	0.0002	0.0003	0.6	No
H_2S	---	6.6	7.4	0.5	0.3	10	No
GHG	---	36,974	44,043	---	7,069	75,000	No
CO_2e	---	55,930	66,811	---	10,881	75,000	No

a. Permitted emission standards in accordance with the Title V air operating permit No. 1070005-031-AV, as amended.

b. 24-month baseline periods are: (CO, TRS) - 1/2002 to 12/2003; $PM/PM_{10}/PM_{2.5}$ – 2/2002 to 1/2004 (NO_X, VOC, SAM, lead, H_2S) – 5/2002 to 4/2004; SO_2 – 6/2009 to 5/2011; GHG – 6/2008-5/2010

c. The projected actual emissions were based on both historical operating data, as well as, the company's highest projections of expected business activity for the five-year period after implementation of the project. The projected actual black liquor solids processing rate for this project was determined to be 836,000 tons BLS/year, which is based on the expected paper production rate of the mill.

d. Portion of the emissions following the project that the No. 4 Recovery Boiler could have accommodated (CHA) during the baseline actual emissions period and that are also unrelated to the floor tube project including any increased utilization due to product demand growth.

e. Sum of projected actual emissions minus baseline actual emissions minus CHA excludable emissions.

f. SO_2 emissions cap to avoid PSD preconstruction review for PSD-FL-380 and PSD-FL-393.

The applicant used the "baseline actual-to-projected actual emissions" technique described above. Projected actual emissions calculated and in accordance with paragraph (c) a deduction was made for emissions that the boiler could have accommodated due to increased utilization or demand but unrelated to the floor project. No emissions increases are specifically credited to the floor project and no increases are actually expected due to the floor project.

As a reference, the Department added a column to show the federally enforceable emission limits that were included in the previously referenced permit PSD-FL-380 (1070005-038-AC) and other related permits. It is noteworthy that the baseline actual emissions, as well as, the projected actual emissions are substantially less than the recently established and federally enforceable emission limits.

In reviewing the submittal, the Department discovered an upward bias in both the deductable emissions increases creditable to demand and in the projected emissions based on historical stack testing. The estimate of future demand was partly based on a monthly black liquor solids throughput rate achieved before the recent projects and which that exceeds the present permitted rate of 210,000 lb/hour. Emission factors for the future operation were based on past tests with add-ons (e.g. one standard deviation) to account for variability. The two biases tend to offset each other but there is still a bias towards greater emissions than would be expected given that the floor project will not actually affect emissions.

Rather than reconstruct the projected actual emissions calculations, the Department will list the baseline actual emissions in the permit and require five years of recordkeeping by the company. There is sufficient basis for the Department to presume that the federally enforceable limits establish actual emissions as well as projected actual emissions thus resulting in no calculated increase. This would obviate the requirement to obtain a permit. However, in view of the increases projected by the company, a permit rather than an exemption from permitting will be issued for the proposed floor tube replacement project.

PSD Applicability for Project

Based on the foregoing discussion, the Department concludes that the project will result in near zero emission increases regardless of the computational manner adopted. The Department has reasonable assurance that the project will not result in significant net emission increases from the unit that would otherwise require a review under the Rules for the PSD at Paragraph 62-212.400, F.A.C.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project does not constitute routine maintenance repair or replacement. The project constitutes a modification (i.e. a non-major modification of a major stationary source) as defined in the Department's rules and is not exempt from the requirement to obtain an air construction permit. The project will comply with all applicable state and federal air pollution regulations as conditioned by the draft minor source 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. Tammy McWade is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Office of Permitting and Compliance at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.