Memorandum

Florida Department of Environmental Protection

TO: Michael Cooke

THRU: Trina Vielhauer

FROM: Jim Pennington

DATE: April 14, 2005

SUBJECT: Georgia-Pacific Hosford OSB Plant
0770010-002-AC, PSD-FL-282A

Attached for approval and signature is the final permit package for the Georgia-Pacific Hosford OSB plant. This construction/PSD permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 600 million square feet per year, on a 3/8-inch basis. This facility will be located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. It was subject to PSD for PM/PM_{10} (296.8 TPY), NOx (449.6 TPY), CO (755.8 TPY) and VOC (413 TPY). Fuels are wood and natural gas. Principal controls are regenerative thermal oxidizers for the dryers and panel press. Exhaust from the thermal oil system is normally directed to the dryers through an ESP, and when the ESP exhausts directly to the atmosphere, we require firing of only natural gas. Enclosed particulate sources are controlled with integral cyclone/baghouse equipment.

The final permit includes a summary of the control technology determinations for BACT and MACT in appendix B of the permit.

The Public Notice requirements were initially met on October 16 and 20, 2004, by publishing in both the Tallahassee Democrat and the Calhoun/Liberty Journal. Comments were received from EPA Region 4 and the Company. A revised draft permit was prepared and the Public Notice requirements were met on March 6 and 9, 2005 by publishing in the Tallahssee Democrat and the Calhoun/Liberty Journal. No further comments were received.

I recommend your approval and signature.

Attachments

FINAL DETERMINATION
Georgia-Pacific Corporation
G-P Hosford OSB Plant
Permit Number 0770010-002-AC
PSD-FL-282A

An Intent to Issue Air Construction Permit to Georgia-Pacific Corporation for the construction of an oriented strand board (OSB) wood products manufacturing plant near Hosford, Liberty County, Florida was distributed on September 29, 2004. The proposed permit covered the modification/construction of a new plant to expand the applicant's OSB production from 475 million to 600 million board feet on a 3/8 inch basis. The facility will be a major source of emissions of PM/PM10, NOx, CO and Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) including formaldehyde and total HAPs.

The Public Notice of Intent to Issue Air Construction Permit was published by the Applicant in the Tallahassee Democrat newspaper on October 16, 2004 and in the Calhoun/Liberty Journal newspaper on October 20, 2004. Copies of the draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and Pensacola.

No public meeting was requested and no public meeting was held. During the public comment period ending on November 20, comments were received from the EPA and the Applicant.

The EPA comments requested clarification of the purpose of the permit. The Applicant requested clarification of several permit conditions, the addition of more stringent VE observation record keeping and that the VE limit allow for the routine maintenance procedures required for proper operation of the RTO emission control units.

The Draft permit was revised as needed and the Public Notice was republished by the applicant in the Tallahassee Democrat newspaper on March 6, 2005 and in the Calhoun/Liberty Journal newspaper on March 9, 2005. Copies of the revised draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and Pensacola.

Again, no public meeting was requested and no public meeting was held. During the public comment period ending on April 8, 2005, no further comments were received from either the EPA or the Applicant. All of the original comments are addressed below and include the applicant's responses to issues initially raised by the EPA:

Public's Comments: NONE to both versions.

National Park Service's Comments: NONE to both versions.

Georgia Pacific's (GP) and the EPA's Comments to first Draft each followed by the Applicant's and the Department's Response:

GP Comment.
1. Opacity from RTO/TCOs
Periodically, in order to insure proper operation and, ultimately, compliance with permit limits, it is necessary to perform modified bakeouts on the RTOs/TCOs. Bakeouts and washouts are inherent problems of this technology and serve to extend the life of the media in the RTO/TCO and minimizes the frequency of full washouts.

In order to reduce static pressure across the beds of the dryer RTO/TCOs between scheduled washouts, GP has implemented a modified bakeout procedure at several plants, including the Fordyce, AR OSB plant. The procedure may take 10 to 30 minutes per RTO/TCO. With regard to opacity, a significant increase would be expected to occur initially with the first cycle of cleaning (three cycles may be needed). Opacity for the following 1 or 2 cycles would be dramatically less. As such, any increase in opacity would be very

short-term, in most cases limited to the first few seconds per RTO/TCO section. The Final USEPA NESHAP for Plywood and Composite Wood Products (40 CFR 63 Subpart DDDD) recognizes the need to perform these activities, hence the Routine Control Device Maintenance Exemption or downtime allowances of 3% and 0.5% for RTO/TCO/RCO controls on rotary dryers and presses/veneer dryers, respectively. These activities which are in addition to SSM related episodes, need to be pre-scheduled and are exempted from MACT compliance. Please refer to section I. Routine Control Device Maintenance Exemption of the Summary of Public Comments and Responses for the NESHAP.

The proposed permit language states that the opacity limit is 5%.
GP requests that the language clearly state that the opacity limit of 5% does not apply during periods when the RTOs/TCOs are off line. Indeed, the operating scenario is comparable to how a conventional boiler may switch between normal operations and periodic soot-blowing.

Department's Response:

The Department agrees and changes were made to the permit to reflect the need for higher opacity during these routine maintenance activities. As Method 9 is based on six minute averages, it is doubtful that opacity exceedances will occur.

GP Comment
2 BACT for Thermal Oil Heater Exhaust (EU10)
The proposed permit language states that BACT for the thermal oil heater is the continuous use of natural gas when the exhaust is directed to the atmosphere directly through the ESP stack. The oil heater normally exhausts from the ESP into the flake dryers (EU1). However, there may be times when the dryers are down, or an operating situation, such as a pressure imbalance (e.g., startup/shutdown/malfunction of an individual dryer), occurs that requires the oil heater exhaust to be vented to atmosphere. These times are short and difficult to predict and generally only occur for up to a few hours, generally less than 24 hrs.

Sanderdust is generally available except when significant upsets throughout the plant occur. If the board finishing operations (sanding) are interrupted by such a process upset, then the supply of sanderdust to fire the thermal oil system also becomes quickly depleted.

If the dryers go down for an extended time, the plant may still desire to keep the thermal oil hot enough to stay ready. It's during these times, after the sanderdust supply has been depleted, that the plant would switch to natural gas. Natural Gas also would be used when starting up the sanderdust burners. Natural gas is the most costly fuel for the thermal oil heater, and therefore the least preferred fuel.

As the BACT analysis showed, the thermal oil heater is equipped with an ESP, and additional control equipment may not be cost effective. The RBLC Clearinghouse showed that the emissions from bark-firing for a 80 MMBtu/hr source generally are not further controlled (shown in BACT analysis). The system is designed to be the end use of sanderdust generated in the finishing operations. Natural gas cannot be used as a substitute for the sanderdust, as we would then have to find a way to store and ultimately dispose the sanderdust We cannot return the sanderdust back into the board manufacturing area (i.e., dryer and press). The PTE from the source (after ESP) are 2.0 lb/hr SO2, 17.6 lb/hr NOx, and 8 lb/hr PM. As there is no maximum hours per year to atmosphere, it is subjective to compute a ton per year number for cost effectiveness.

GP requests that the BACT for thermal oil heater exhaust (EU10) only require the use of natural gas as the thermal oil heater exhaust is directed to atmosphere for periods beyond **24** hours, not immediately as shown in the permit.

Department's Response:

The Department agrees with the applicant that the ESP is not needed to control particulate matter emissions during the situations that are anticipated for the firing of only natural gas and the requirement was changed to allow shutdown of the ESP when only natural gas is fired. Emissions of particulate matter (PM) and PM_{10} are minimal during the firing of natural gas and the Department does not require PM/PM_{10} controls for emission units firing natural gas.

GP Comment:
3. Compliance Monitoring for RTOs/TCOs (EU1 and EU2)

The proposed permit language requires the monitoring of the static pressure at the fan inlet, isolation damper position, airflow rate (SCFM) and retention chamber temperature. The Final USEPA NESHAP for Plywood and Composite Wood Products (40 CFR 63 Subpart DDDD) requires the monitoring of retention chamber temperature for these source only. In section H. 5. of its Summary of Public Comments and Responses for the NESHAP, USEPA agreed with commenter's reasons that flowrate and static pressure are unreliable methods of monitoring capture efficiency:

"As stated in the previous response, we have deleted air flow (and static pressure) monitoring from the operating requirements for thermal and catalytic oxidizers in the final PCWP rule. The final rule requires continuous monitoring of temperature for thermal oxidizers. We believe that temperature is both a controllable parameter and a reliable indicator of control efficiency for thermal oxidizers, and that it is appropriate to require monitoring of a single parameter (temperature) for this device. For catalytic oxidizers, the final rule requires continuous monitoring of temperature and an annual test of catalyst activity level (see response to comment No. 2.7.11.6 below). We believe that these two requirements together will provide sufficient monitoring of the catalytic oxidizers." (USEPA, pg 2-178)

If the temperature is maintained at a point shown to maintain the permit limits, then the values of the other parameters only reflect the way the unit is operated to maintain that temperature and should not be used as compliance parameters.

Department's Response:

The Department agrees and the requirement to monitor airflow and static pressure has been removed. The requirement to monitor damper position is retained for compliance verification with the operating scenarios for the dryers.

EPA Region 4 Comments:

1. The table on page 3 of the draft permit shows the difference between the allowable emissions in the original permit and the new proposed allowable emissions. Showing this difference might imply that the change in production capacity is being treated as a modification and not as a re-issuance of permit for the entire project. We do not believe the Florida Department of Environmental Protection (FDEP) is actually viewing the change as a modification, but we wanted to make clear our position that what is happening is a re-issuance of a permit for the entire project. Please verify that the best available control technology evaluation and the air quality modeling assessment for the change are based on total allowable emissions and not on the change in allowable emissions.

GP Response to EPA's Comment:

The air permit application reflects the condition that the plant is not yet operational. All application data (*e.g.*, air quality analyses and BACT determinations) and emission rates are based on the new capacity of 600 million square feet per year (MMsf/yr) of product.

Department Response:

The Department agrees that this permit is a re-issuance of the entire permit and not a modification as the plant is still under construction and the Applicant's identical facility in Fordyce, Arkansas was found to have the larger capacity upon start up without any physical changes.

EPA Region 4 Comments:

2. In the draft permit conditions for the panel press, Emission Unit No. 002, FDEP is allowing a switch from a regenerative thermal oxidizer (RTO) to a thermal catalytic oxidizer (TCO) without the need for a permit revision. This seems reasonable to us, but FDEP might consider adding a permit condition requiring GP to notify FDEP at such time as a switch is made from an RTO to a TCO. Also, please verify that the permit monitoring requirements for compliance control parameters and operational status indicators are still appropriate if the switch is made from an RTO to a TCO. For example, measurement of static pressure might be a good indicator of potential plugging of the RTO media, but is it also an appropriate indicator of possible catalyst deactivation?

The table on page 3 of the draft permit show's potential maximum emissions after the change in production capacity. These new potential maximum emissions are generally commensurate with the allowed increases in production capacity (based on a comparison of the new potential maximum emissions listed in the table with the "Current Allowable Emissions" listed in the table). However, potential maximum emissions of carbon monoxide (CO) do not fit this pattern. The listed Potential Maximum Emissions rate for CO is 755.8 tons per year (tpy), compared to the listed Current Allowable Emissions for CO of 197.1 tpy. Most of the potential CO emissions are from the oil heating system (529.5 tpy). We can not find a derivation of oil heating system CO emissions in the permit application.

We also have other concerns about emissions from the oil heating system. FDEP notes in the permit conditions for the oil heating system that potential emissions from wood firing in the oil heating system "are accounted for in the estimate for emissions unit 001" (the flake dryers). FDEP further notes that emissions during natural gas firing in the oil heating system will go directly to the atmosphere and that potential direct emissions are PM/PM_{10} 0.5tpy, NO_x 26.3 tpy, CO 23.6 tpy, VOC 1.3 tpy, and SO_2 0.16 tpy. Our concerns are as follows. (a) There are no emissions limits for direct emissions from the oil heating system. (b) The CO limit for the flake dryers including emissions from the oil heating system during wood firing is equivalent to 40.4 tpy, and the stated direct emissions of CO from the oil heating system during natural gas firing is 23.6 tpy. These two numbers do not add up to anything close to the listed Potential Maximum Emissions for CO from the oil heating system of 529.5 tpy. Please provide information to help us understand CO emissions from the oil heating system.

GP Response to EPA's Comment:

GP agrees with EPA's proposed changes with the following clarification:

- The system being installed is a Regenerative Catalytic Oxidizer (RCO) with enough capacity to operate as an RTO. GP intends to operate the system as an RCO upon startup of the plant.
- In addition, GP proposes to continuously monitor the RCO temperature and maintain a 12-hour block average temperature above the minimum temperature established during the last performance test, and check the activity level of a representative sample of the catalyst at least every 12 months.

- GP requests that conversion from RCO to RTO not be subject to a permit amendment but simply require a written notification to the Florida DEP. Notification should include an explanation for the conversion. Conversion from RCO to TCO should not be performed until approval is received from the Florida DEP.

Department Response:

The maximum potential CO emissions for the oil heating system are actually 210 tons per year rather than the 529.5 tons per year as presented in the first Draft. The table in Section I on page 3 of 25 of the permit was revised.

EPA Region 4 Comments:

3. The draft permit allows excess emissions for two hours in a 24-hour period for startup and shutdown of the flake dryers (Emissions Unit 001), panel press (Emissions Unit 002), and the thermal oil system electrostatic precipitator (ESP) bypass stack (Emissions Unit 010).

(a) With regard to the thermal oil system, we are not sure why an excess emissions allowance is needed since the only emissions limit is a visible emissions limit and the permit requires operation of the ESP "at all times." We would be interested to know why operation of the ESP during startup and shutdown would not serve to achieve compliance with the visible emissions limit, thereby eliminating the need for an excess emissions allowance.

(b) With regard to the flake dryers and panel press, we would be interested to know why the RTOs could not be activated prior to process startup and operated during process startup to eliminate the need for a startup excess emissions allowance for the pollutants controlled by the RTOs. Similarly, we would be interested to know why the RTOs could not be kept in operation during process shutdown until a process shutdown is completed.

GP Response to EPA's Comment:

a. An excess emissions allowance is needed and it is appropriate for periods when the mechanical controls used to switch from wood fuel to natural gas do not operate properly and during the transition period from wood to natural gas. We do not object to the operation of the dry ESP when burning wood. In contrast, we do not agree to the requirement of operation of the dry ESP when burning natural gas. Requiring the plant to operate the dry ESP while burning natural gas will impose an unbearable financial burden upon the plant, as it will have no effect on reducing emissions and increase the operating cost beyond justification of the investment. The dry ESP was not designed to maintain the opacity limit during startup and shutdown periods. As with other wood combustion device operating in a startup or shutdown mode, excess emissions are possible, and are operating conditions recognized by the supplier and normally excluded from the performance guarantee.

The current configuration of the drying system allows for the combustion gases from the Thermal Oil Heater (TOH) to be routed to the flake dryers to take advantage of its heat value. The system is designed to

operate in this mode at all times except during startup, shutdown and malfunction periods at which time emissions from the TOH will be vented to atmosphere to protect the equipment and safety of our employees. It is important to recognize the fact that Subpart DDDD **National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products** regulates only that portion of emissions from a combustion unit that are routed through the direct-fired dryers. Any emissions from a combustion unit that are not routed through the direct-fired dryers would be subject to Subpart DDDDD **National Emission Standards for** Industrial/Commercial/Institutional Boilers and Process Heaters. GP suggests that the agency adopts similar language to regulate the performance of the TOH.

b) Under normal short maintenance activities, the RTOs and RCO will be maintained in the idled position at low temperature (about 24-hours) and kept ready to resume normal operation when process restarts. The RTOs and RCO will be started ahead of the process after extended maintenance activities (more than 24-hours). However, RTOs and RCO will not be put online until the process is ready to accept them. This is part of the standard operating procedures for the facility to minimize the potential of severe damage to the equipment and for the safety of our employees, hence, the need for a startup excess emissions allowance for the pollutants controlled by the RTOs and RCO.

Department Response:

The permit and BACT determination were changed to allow by-pass of the ESP while burning natural gas. This change recognizes that an ESP controls particulate matter only and is not needed for those situations where only natural gas is being burned. The Department's SSM rule is part of the EPA approved SIP and is used when no federal standard for SSM is mandated.

EPA Region 4 Comments:

4. The table on page 3 of the draft permit show's potential maximum emissions after the change in production capacity. These new potential maximum emissions are generally commensurate with the allowed increases in production capacity (based on a comparison of the new potential maximum emissions listed in the table with the "Current Allowable Emissions" listed in the table). However, potential maximum emissions of carbon monoxide (CO) do not fit this pattern. The listed Potential Maximum Emissions rate for CO is 755.8 tons per year (tpy), compared to the listed Current Allowable Emissions for CO of 197.1 tpy. Most of the potential CO emissions are from the oil heating system (529.5 tpy). We can not find a derivation of oil heating system CO emissions in the permit application.

GP Response to EPA's Comment:

The 2004 air permit application forms and emission calculations listed a potential emission rate of 0.6 lb CO /MMBtu when firing woodwaste. When operating at maximum capacity, and exhausting via the ESP directly to atmosphere, the emission rate is approximately 210 tpy. GP included in our application an introduction section. Page 18 of the introduction presents Table 4-1 which incorrectly lists the potential emission of 529.5 tpy.

Department Response:

The maximum potential CO emissions for the oil heating system are actually 210 tons per year rather than the 529.5 tons per year as presented in the first Draft. The table in Section I.on page 3 of 25 of the permit was revised in the revised Draft.

EPA Region 4 Comments:

5. We also have other concerns about emissions from the oil heating system. FDEP notes in the permit conditions for the oil heating system that potential emissions from wood firing in the oil heating system "are accounted for in the estimate for emissions unit 001" (the flake dryers). FDEP further notes that emissions during natural gas firing in the oil heating system will go directly to the atmosphere and that potential direct emissions are PM/PM_{10} 0.5tpy, NO_x 26.3 tpy, CO 23.6 tpy, VOC 1.3 tpy, and SO_2 0.16 tpy. Our concerns are as follows. (a) There are no emissions limits for direct emissions from the oil heating system. (b) The CO limit for the flake dryers including emissions from the oil heating system during wood firing is equivalent to 40.4 tpy, and the stated direct emissions of CO from the oil heating system during natural gas firing is 23.6 tpy. These two numbers do not add up to anything close to the listed Potential Maximum Emissions for CO from the oil heating system of 529.5 tpy. Please provide information to help us understand CO emissions from the oil heating system.

GP Response to EPA's Comment:

Please see the response to EPA's Comment 4.

Department Response:

The CO emissions potential was corrected.

EPA Region 4 Comments:

6. In condition II.6. of the draft permit, FDEP includes the usual provision that the construction permit is no longer valid "if construction is not completed within a reasonable time." Since FDEP issued the original permit for this project in 2000, does the "reasonable time" for construction completion include the time since original permit issuance or does the "reasonable time" clock start over with the proposed permit re-issuance?

GP Response to EPA's Comment:

GP's construction schedule was longer than we anticipated in 2002, when we requested an extension of the original construction permit. At this time, GP is nearly complete with construction of the plant. With the 2004 air permit application, GP updated the emissions inventory, air quality analysis, Best Available Control Technology review and other applicable information required by Florida Rule 62-210.

Department Response:

This permit revision represents BACT for this type of facility. The ambient air analysis showed that there were no impacts that would require additional limitations and the proposed controls would not change. The shutdown of the ESP on those occasions when only natural gas is fired will not result in increased emissions of particulate matter.

Final Action:

The final action of the Department will be to issue the permit as discussed above.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Mr. Ronald L. Paul, Exec. VP
Wood Products & Distribution
Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, GA 30303

DEP File No. 0770010-002-AC
PSD-FL-282A
G-P Hosford OSB Plant
Liberty County

Enclosed is Final Permit Number 0770010-002-AC, PSD-FL-282A. This permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 600 million square feet per year, on a 3/8-inch basis, at a site on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Trina L Vielhauer

Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/20/05 to the person(s) listed:

Mr. Ronald L. Paul, G-P Corporation*
Mr. Mark Aguilar, P.E., G-P Corporation
Ms. Sandra Veazey, DEP NW District
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Mary L Harvey (Clerk) 4/20/05 (Date)

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE

Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, GA 30303

Permit No.	0770010-002-AC, PSD-FL-282A
Project	G-P Hosford OSB Plant
SIC No.	2493
Expires:	December 31, 2005

Authorized Representative:

Ronald L. Paul, Executive Vice President
Wood Products & Distribution

PROJECT AND LOCATION

This permit authorizes Georgia-Pacific Corporation to modify/construct an oriented strandboard manufacturing facility to have a capacity of 600 million square feet per year, on a 3/8-inch basis.

This facility will be located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The UTM coordinates are: Zone 16; 713.5 km E and 3369.5 km N.

STATEMENT OF BASIS

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the 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 authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix A	NSPS General Provisions
Appendix B	BACT/MACT Determination Summary
Appendix GC	General Permit Conditions

Michael G. Cooke, Director
Division of Air Resource
Management

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility will be a new oriented strandboard manufacturing facility with a capacity of 600 million square feet per year, on a 3/8-inch basis, located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The UTM coordinates are: Zone 16; 713.5 km E and 3369.5 km N. This site is approximately 30 kilometers from the Bradwell Bay National Wilderness Area and 56 kilometers from the St. Marks National Wildlife Refuge, both PSD Class I areas. The Standard Industrial Classification (SIC) Codes for the facility are Industry Group 24, Lumber and Wood Products Except Furniture, and Industry Number 2493, Reconstituted Wood Products.

The applicant proposes to construct this new OSB manufacturing facility with the following emissions units:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Five flake dryers with two regenerative thermal oxidizers
002	Panel press with one regenerative thermal oxidizer/thermal catalytic oxidizer
003	Screen fines with saw trim transfer baghouse exhaust
004	Saw trim/finishing baghouse exhaust
005	Mat reject/flying saw baghouse exhaust
006	Specialty saw/sander baghouse exhaust
007	Fuel system pneumatics baghouse exhaust
008	Forming bins baghouse exhaust
009	Hammer mill baghouse exhaust
010	Thermal oil system electrostatic precipitator exhaust

Fugitive sources of particulate matter are bark handling, wind erosion of bark stockpiles, drum debarkers, bark hog, and road traffic on paved and unpaved roads. These are subject only to the facility-wide specific conditions of this permit specified in Section II, including additional precautions to prevent emissions of unconfined particulate matter established as BACT.

The emissions associated with this project result from combustion of wood and natural gas in the dryers and thermal oil system, combustion of natural gas in the regenerative thermal oxidizers, material handling sources, and fugitive particulate emissions. Annual potential emissions from this project were estimated based on operating at maximum capacity for 8760 hours per year. Emissions from the dryers, panel press and material handling sources were estimated using emission limits established as BACT, except for SO_2 emissions from the dryers and thermal oil system, which were estimated from AP-42 emission factors for external combustion sources firing wood and natural gas. Emissions from the thermal oil system were estimated from AP-42 emission factors for external combustion sources firing natural gas. Fugitive emissions were estimated using AP-42 emission factors.

The following table summarizes the potential maximum emissions for this project in TPY:

Pollutant	Dryers	Panel Press	Oil Heating System	Other Process-ing	Current Allowable Emissions	Potential Maximum Emissions	Potential vs. Allowable[2]	PSD Signif-icant
PM/PM_{10}	187.0	15.5	35.0	59.3	212.9/160.3 [1]	296.8/296.8	83.9/136.5	25/15
NOx	332.0	59.2	58.4	-	309.7	449.6	139.9	40
CO	185.9	40.4	210.0	-	179.1	395.9	256.8	100
VOC	349.1	55.3	8.6	-	320.2	413.0	92.8	40
SO_2	30.7	-	2.9	-	-	33.6 [3]	33.6	40
VE	10%	10%	5%	5%	N/A	N/A	N/A	N/A

[1] PSD-FL-282 did not contain PM_{10} limits for emission units in the Other Processing category.
[2] Total increase over PSD-FL-282 allowables. The applicant did not include fugitive emissions in the PSD applicability determination. These are estimated at 5.0 TPY for PM/PM_{10} and 0.9 TPY for VOC. PSD significance levels are from Florida Administrative Code Table 212.400-2.
[3] SO_2 potential emission estimates are based on wood firing.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM_{10}, carbon monoxide, SO_2, nitrogen dioxide, and lead.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceed 100 tons per year (TPY). At this facility potential emissions of particulate matter (PM/PM_{10}), nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOC) exceed 100 tons per year.

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Potential emissions of PM/PM_{10}, NOx, CO and VOC all exceed 250 TPY as well as the PSD significance levels of Table 212.400-2, F.A.C. Therefore, the project is subject to PSD requirements of Rule 62-212.400, F.A.C., for PM/PM_{10}, NOx, CO and VOC. The project is not subject to PSD requirements for SO_2.

The emissions units and fugitive sources are subject to limits determined as BACT for particulate matter and visible emissions, NOx, CO and VOC. The thermal oil system is also subject to regulation under the New Source Performance Standards: 40 CFR 60 Subpart A, General Provisions, and Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. However, this regulation only applies to the thermal oil system when it exhausts through the bypass stack of Emissions Unit 010 and this NSPS only imposes record keeping and reporting requirements. The thermal oil system is not subject to regulation under Rule 62-296.406, F.A.C., for fossil fuel steam generators less than 250 mmBtu/hr, but is subject to the requirements of Rule 62-296.410(2), F.A.C., for carbonaceous fuel burning equipment, which limits visible emissions and particulate matter while firing wood fuel. Emissions from the thermal oil system are routed to the dryer system while wood fuel is

fired. The PM/PM_{10} emission limit for the dryer system, based on potential wood fuel input to the dryers and thermal oil system, is equivalent to 0.12 pounds PM/PM_{10} per million Btu, which is more stringent than the limit of Rule 62-296.410(2)(b)2, F.A.C. The visible emissions limit for the dryer system is more stringent than the limit of Rule 62-296.410(2)(b)1, F.A.C. Compliance with the dryer system limits will ensure compliance with the requirements for carbonaceous fuel burning equipment applicable to the thermal oil system. No separate compliance tests are required for the thermal oil system to demonstrate compliance with the limits of Rule 62-296.410(2), F.A.C.

This facility is a major source of hazardous air pollutants (HAPs), based on potential point-source and fugitive emissions of formaldehyde and total HAPs. This facility is currently subject to a Section 112(g) case-by-case determination of Maximum Achievable Control Technology (MACT) for HAP emissions issued as part of PSD-FL-282 according to Rule 62-204.800(10)(d)2, F.A.C. That rule requires a MACT determination for all major sources of HAP to be constructed or reconstructed. Under PSD-FL-282 and this permit, the limits determined as BACT for VOC also constitute limits determined to be MACT for HAPs. (The MACT requirements and the Department's determination of MACT are discussed further in Appendix B of this permit). On July 30, 2004, the Environmental Protection Agency (EPA) promulgated a MACT standard (40 CFR 63 Subpart DDDD) with a compliance date of October 1, 2007 for this facility category. Since construction of this facility was begun prior to the MACT proposal date of January 9, 2003, this facility is an existing source under Subpart DDDD. Therefore, on October 1, 2007, this facility must comply with the more stringent requirements of this permit and of that standard. If a new affected facility is constructed on the site before that date, that part of the facility may become subject to Subpart DDDD on startup.

The emission units affected by this permitting action shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein).

REVIEWING AND PROCESS SCHEDULE AND RELEVANT DOCUMENTS

July 16, 2004	Received permit application and fee
July 16, 2004	Application complete
September 29, 2004	Distributed Notice of Intent to Issue and supporting documents
October 16, 2004	Notice of Intent published in the Tallahassee Democrat
October 20, 2004	Notice of Intent published in the Calhoun/Liberty Journal

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Permit application
- Department's Technical Evaluation
- Department's Intent to Issue

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Northwest District office at 160 Governmental Center, Pensacola, Florida 32501-5794, phone number 850/595-8300.

2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Parts 60 and 63, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

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

6. Expiration: This air construction permit shall expire on December 31, 2005. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

7. PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C., consistent with 40 CFR 52.21(r)(2)]

8. BACT Determination Review: In conjunction with extension of the 18 month periods to commence or continue construction, extension of the permit expiration date, or where construction is conducted in two or more phases, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C., consistent with 40 CFR 52.21(j)(4)]

9. Modifications: No emissions unit or facility subject to this permit shall be constructed, reconstructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

10. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Northwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213.420, F.A.C.]

EMISSION LIMITING STANDARDS

11. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

12. Unconfined Emissions of Particulate Matter:

    a. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

    b. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

    c. Reasonable precautions include the following:

        i. Paving and maintenance of roads, parking areas and yards.
        ii. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

iii. Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
iv. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
v. Landscaping or planting of vegetation.
vi. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
vii. Confining abrasive blasting where possible.
viii. Enclosure or covering of conveyor systems.

[Note: The areas for log transfer to the debarking operations and service road are not required to be paved.]

ix. Additional reasonable precautions applicable to this facility are:

x. The drum debarkers and bark hog shall be enclosed to the extent practicable.
xi. Bark by-product transfer points and chutes shall be enclosed to the extent necessary to minimize the emissions of unconfined particulate matter.
xii. Bark storage piles shall be enclosed on three sides and shaped and oriented to minimize wind erosion.
xiii. The manufacturing area and access roadways for the facility shall be paved with asphalt or concrete, and shall be swept or vacuumed as needed to prevent the emissions of unconfined particulate matter.

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

[Rules 62-296.320(4)(c) and 62-212.400, F.A.C., and BACT]
[Note: Fugitive sources of particulate matter are bark handling, wind erosion of bark stockpiles, drum debarkers, bark hog, and road traffic on paved and unpaved roads. The precautions specified above constitute BACT and are estimated to limit potential emissions of PM/PM_{10} to 5.0 TPY.]

13. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2) and 62-212.400, F.A.C., and BACT]

a. No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

i. The following vapor emission control requirements are ordered by the Department:

1. The resin storage tank exterior color shall be aluminum or white. Vents on the tank shall be properly maintained so that the tank is not subjected to continuous exhaust.

ii. Equipment for transfer and intermediate storage of resin shall be enclosed until the point of use.

b. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(198), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

[Note: Fugitive sources of VOC are the resin storage tank, blend house where chips are blended with resin, wax and additives, and finished product storage. The specific formulation is not limited by this permit provided fugitive emissions will not exceed the estimate for this permit. The precautions specified above constitute BACT and are estimated to limit potential emissions of VOC to 1 TPY.]

OPERATIONAL REQUIREMENTS

14. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's Northwest district office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its 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 Department rules. [Rule 62-4.130, F.A.C.]

15. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

16. Excess Emissions: The following excess emissions provisions of state rule apply to the emissions units as specified below.

    a. Excess emissions for start-up and shutdown are not permitted for emissions units 003 through 009 since these are controlled by a baghouse.

    b. Excess emissions resulting from start-up and shutdown are permitted for emissions units 001, 002 and 010 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.

    c. Excess emissions resulting from malfunction of any emissions units 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.

    d. 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 start-up, shutdown, or malfunction shall be prohibited.

e. Excess emissions resulting from routine maintenance events such as control device bakeouts, washouts, media replacement, and replacement of corroded parts previously requested by the permittee and approved by the Department as routine control device maintenance exemption, and consistent with the requirements provided in 40 CFR 63.2251 are 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.

The excess emissions provisions of state rule specified in the above paragraphs cannot be used to vary any NSPS requirements applicable to emissions unit 010.

[Rules 62-210.700(1), (4) and (5), F.A.C., applicant's request]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

17. 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 two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

18. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical 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 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. [Rule 62-297.310(2), F.A.C.]

19. 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 three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

20. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

21. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

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.

22. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

23. Test Notification: The owner or operator shall notify the Department's district office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include 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. [Rule 62-297.310(7)(a)9., F.A.C.]

[Note: The federal requirements of 40 CFR 60.8 require 30 days notice of the initial performance test and any tests required under section 114 of the Clean Air Act, but the Department rules require 15 days notice for annual compliance tests. In addition to compliance, the initial performance test establishes representative conditions of operation based on permitted capacity and other permit requirements. Unless otherwise advised by the district office or, if applicable, appropriate local program, provide 15 days notice prior to conducting annual compliance tests, except for the initial performance test when 30 days notice is required.]

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

REPORTING AND RECORD KEEPING REQUIREMENTS

25. Duration of Record Keeping: 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. 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 five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

26. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department 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 applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

27. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rule 62-4.130, F.A.C.]

28. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

29. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Northwest District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

30. Property Fencing: The owner or operator shall fence the entire property perimeter to, as a minimum, conform to the boundaries used for modeling the fence line receptors shown in the applicant's submittal to the Department titled, "Site Plan Layout Fence Line Location" Revision C. The fenced perimeter may include a larger area at the discretion of the owner or operator. Such fencing shall be sufficient to prevent access onto the facility property from the general public. Gates may be installed at entry and exit points as long as the owner or operator controls entry onto the facility from the general public at these points. [Rules 62-4.010(3) and 62-212.400(5)(d), F.A.C.]

SUBSECTION A.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Five flake dryers with two identical regenerative thermal oxidizers

[Note: This emissions unit consists of the emission point for each of two regenerative thermal oxidizers (RTOs) used to control emissions from five flake dryers. The dryers are direct fired with wood waste and/or natural gas, and also utilize heat in the exhaust gas of the thermal oil system (see emissions unit 010) during normal operation. Each dryer is equipped with multiclones ahead of its connection to the RTOs at a pressure equalization chamber. This emissions unit is subject to the requirements for Prevention of Significant Deterioration pursuant to Rule 62-212.400, F.A.C., for PM/PM_{10}, NOx, CO and VOC, and of the state rules as indicated in this permit. The emission limit for VOC is also representative of the requirements of the case-by-case MACT determination required for this project. This emissions unit is subject to the CAM requirements of 40 CFR 64.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

2. Process Rate Limited: The processing rate from all five dryers shall be limited to 693,272 oven dried tons of flake per consecutive 12 month period. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

3. Dryer Fuel & Heat Input: The dryers shall be fired with wood waste and natural gas. Heat input for each dryer shall be limited to 40 million Btu/hr, on a 30-day rolling average basis. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

4. Control Technology: Emissions from the dryers shall be controlled with multiclones and two regenerative thermal oxidizers (RTOs). The RTOs shall be fired exclusively from natural gas, and heat input for each RTO shall be limited to 32 million Btu/hour, on a 30-day rolling average basis.

   In no case shall any dryer operate without its emissions directed to an RTO. Emissions from no more than three dryers shall be directed to any one RTO. Both RTOs shall be operated to control emissions when four or five dryers are operating. When either or both RTOs are taken offline for bakeouts, washouts or other maintenance activities, the number of operating dryers shall be reduced to comply with this paragraph. Each RTO retention chamber temperature shall be maintained at the set point temperature recorded during the last successful compliance test for PM/PM_{10}, VOC and CO emissions. Each RTO, for periods of time less than 4 hours, may operate at the minimum chamber temperature established during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

   The permittee shall conduct weekly observations of the opacity from Emissions Unit 001 and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible

emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request.

The permittee shall conduct daily observations of the opacity from Emissions Unit 001 during off-line maintenance functions and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request.

[Rules 62-4.070(3), 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT and case-by-case MACT, applicant's request]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

5. Emissions Limited: Emissions from both RTOs combined shall not exceed the following limits for the listed pollutants. These limits are based on five dryers operating at capacity with exhaust directed to two RTOs. During periods of operation with less than five dryers, allowable emissions shall be the limits below multiplied by the ratio of the number of operating dryers divided by five. In no case shall emissions from any one RTO exceed sixty percent of the limits below.

POLLUTANT	EMISSION LIMIT	AVERAGING TIME	BASIS
PM/PM_{10}	42.7 lb/hour	3 hours [1]	BACT
NOx	75.8 lb/hour [2]	3 hours [1]	BACT
CO	42.4 lb/hour	3 hours [1]	BACT
VOC	79.7 lb/hour [3]	3 hours [1]	BACT
VE	10% opacity	6 minutes [4]	BACT

[1] The averaging times for these pollutants correspond to the required length of sampling for the initial and subsequent emission tests.
[2] Reported as pounds of NO_2 per hour.
[3] Reported as pounds of carbon per hour.
[4] This averaging time represents the minimum averaging time per EPA Method 9. Opacity is limited to 20% when the RTOs are offline for routine maintenance.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 187.0; NO_2, 332.0; CO, 185.9; and VOC, 349.1 TPY. Emission limits for this emissions unit include the emissions from the thermal oil system (emissions unit 010) during normal operating conditions. Total potential emissions of SO_2 for this emissions unit and emissions unit 010 from firing wood are estimated to be 33.6 TPY. Emissions of SO_2 are not limited by this permit.]

[Rules 62-4.070(3), 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT and case-by-case MACT, Applicant's request]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

6. Compliance Assurance Monitoring (CAM) for RTOs: The owner or operator shall prepare and submit to the Department, with the application for a Title V operation permit, a Compliance Assurance Monitoring (CAM) Plan for the RTOs which shall conform to the requirements of 40 CFR

64, and also with the following monitoring requirements. The following requirements are effective upon startup of this emission unit. Any additional requirements of the CAM Plan shall be effective upon issuance of the Title V permit.

Compliance Control Parameters: The owner or operator shall install, calibrate, maintain, and operate a system to continuously monitor the RTO retention chamber temperature of each RTO expressed as degrees Fahrenheit, and shall record 15-minute block averages, and 12-hour block averages based on the 15-minute block averages. Temperature data recorded when no dryer exhaust is directed to the RTO, as evidenced by the isolation damper position data (see following paragraph), may be excluded from the 12-hour block average. 15-minute block average retention chamber temperatures recorded shall be used to demonstrate compliance with the 4 hour minimum temperature requirement of condition 4 of this section. The 12-hour block average retention chamber temperature recorded shall be used to demonstrate compliance with the set point temperature requirement of condition 4 of this section.

Operational Status Indicators: The owner or operator shall install, calibrate, maintain, and operate a system to continuously monitor the isolation damper position for each RTO and each dryer. The isolation damper position shall be recorded when position changes occur. Records of the isolation damper positions shall document when exhaust gases from the dryers are being directed to the RTOs and the number of dryers and RTOs on line, and shall be used, in conjunction with records of operation of the dryers and RTOs, to demonstrate compliance with the requirement of condition 4 of this section to direct dryer exhaust to an RTO and to direct exhaust from no more than three dryers to any one RTO.

[Rules 62-4.070(3), 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT, case-by-case MACT and 40 CFR 64]

7. Emission Tests Required: The owner or operator shall demonstrate compliance with the emission limits of this section by testing each RTO initially and annually using the test methods of 40 CFR 60 Appendix A specified below.

POLLUTANT	TEST METHOD
PM/PM_{10}	Method 5
NOx	Method 7 or 7E [1]
CO	Method 10
VOC	Method 25A [2]
VE	Method 9

[1] Results shall be reported as pounds of NO_2 per hour.
[2] Results shall be reported as pounds of carbon per hour.

[Rule 62-297.310, F.A.C.]

8. Test for Destruction Efficiency Required: An annual test for destruction efficiency shall be conducted simultaneously with the annual emission test for VOCs for each RTO, with destruction efficiency given by the following, expressed as a percentage:

$$\frac{\text{inlet (lb/hour)} - \text{outlet (lb/hour)}}{\text{inlet (lb/hour)}}$$

Destruction efficiency shall be reported with the VOC test results.

[Note: Destruction efficiency is not limited by this permit. These results are reported to provide the Department with information about RTO performance.]

[Rule 62-4.070(3)]

REPORTING AND RECORD KEEPING REQUIREMENTS

9. Records of Process Rate Required: The owner or operator shall make and maintain records of the processing rates of the dryers, in units of oven dried tons of flake per month and tons per consecutive 12 month period, to demonstrate compliance with the limit of condition 2 of this section. Records in units of tons per consecutive 12-month period shall be made from monthly records of process rates for the past 12 months, and shall be completed no later than the 10th day of each month. [Rule 62-4.070(3), F.A.C.]

10. Records of Operation for Dryers: The owner or operator shall make and maintain daily records of fuel consumption and hours of operation of the dryers, and shall each day, using these records and current fuel heat values, calculate the 30-day rolling average heat input for each dryer in units of million Btu/hr, to demonstrate compliance with the limit of condition 3 of this section. The owner or operator shall determine the current heat value for the wood fuel no less than annually. The owner or operator may rely on natural gas heat values provided by the gas supplier. The current natural gas heat value shall be updated no less than quarterly. [Rule 62-4.070(3), F.A.C.]

11. Records of Operation for RTOs: The owner or operator shall make and maintain daily records of fuel consumption of the RTOs, and shall each day, using these records and records of operation and current natural gas heat value, calculate the 30-day rolling average heat input for each RTO in units of million Btu/hr, to demonstrate compliance with the heat input limit of condition 4 of this section. The owner or operator may rely on natural gas heat values provided by the gas supplier. The current natural gas heat value shall be updated no less than quarterly. [Rule 62-4.070(3), F.A.C.]

[Note: Condition 6 of this section also specifies records of RTO operation required to be made and maintained for compliance assurance monitoring.]

SUBSECTION B.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
002	Panel press with one regenerative thermal oxidizer and/or thermal catalytic oxidizer

[Note: This emissions unit consists of the emission point for the regenerative thermal oxidizer (RTO) used to control emissions from the panel press sized for an 8 ft. by 24 ft. mat of wood flakes, resin and wax. The owner or operator may, during the term of this permit and without need for modification of this permit, elect to replace the RTO with a thermal or regenerative catalytic oxidizer (TCO/RCO), in which a portion of the heat retention media is replaced with a precious metal catalyst to facilitate control at lower temperatures and/or with greater thermal efficiency. Where this subsection of this permit refers to an RTO, it shall also mean a TCO/RCO. The press is indirectly heated by the thermal oil system (see emissions unit 010). This emissions unit is subject to the requirements for Prevention of Significant Deterioration pursuant to Rule 62-212.400, F.A.C., for PM/PM_{10}, NOx, CO and VOC, and of the state rules as indicated in this permit. The emission limit for VOC is also representative of the requirements of the case-by-case MACT determination required for this project.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

2. Production Limited: Production of oriented strandboard shall be limited to 600 million square feet on a 3/8-inch basis, per consecutive 12 month period. Records of production shall be made and maintained at the facility sufficient to demonstrate compliance with this limitation. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

3. Control Technology: Emissions from the panel press shall be controlled with a regenerative thermal oxidizer (RTO) and/or a thermal catalytic oxidizer (TCO). The owner or operator may, during the term of this permit and without need for modification of this permit, elect to replace the RTO with a TCO. Where this subsection of this permit refers to an RTO, it shall also mean a TCO/RCO when the RTO is equipped with a catalyst. The RTO shall be fired exclusively from natural gas, and heat input for the RTO shall be limited to 16 million Btu/hour, on a 30-day rolling average basis.

   In no case shall the press operate without its emissions directed to the RTO. When the RTO is taken offline for bakeouts, washouts or other maintenance activities, the press shall not be operated. The RTO retention chamber temperature shall be maintained at the set point temperature recorded during the last successful compliance tests for PM/PM_{10}, VOC and CO emissions. The RTO may, for periods of time less than 4 hours, operate at the minimum retention chamber temperature established during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

   The permittee shall conduct weekly observations of the opacity from Emissions Unit 002 and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible

emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request.

The permittee shall conduct daily observations of the opacity from Emissions Unit 002 during off-line maintenance functions and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the corrective action taken for a period of five (5) years. The permittee must keep these records onsite and make them available to Department personnel upon request.

[Rules 62-4.070(3); 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT and case-by-case MACT, applicant's request]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

4. Emissions Limited: Emissions from the RTO shall not exceed the following limits for the listed pollutants. These limits are based on the panel press operating at capacity.

POLLUTANT	EMISSION LIMIT	AVERAGING TIME	BASIS
PM/PM_{10}	3.6 lb/hour	3 hours [1]	BACT
NOx	13.5 lb/hour [2]	3 hours [1]	BACT
CO	9.2 lb/hour	3 hours [1]	BACT
VOC	12.6 lb/hour [3]	3 hours [1]	BACT
VE	10% opacity	6 minutes [4]	BACT

[1] The averaging times for these pollutants correspond to the required length of sampling for the initial and subsequent emission tests.
[2] Reported as pounds of NO_2 per hour.
[3] Reported as pounds of carbon per hour.
[4] This averaging time represents the minimum averaging time per EPA Method 9. Opacity is limited to 20% when the RTO is offline for routine maintenance.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 15.5; NOx, 59.2; CO, 40.4; and VOC, 55.3 TPY. Potential emissions of SO_2 from the RTO for this emissions unit are negligible and are not limited by this permit.]

[Rules 62-4.070(3), 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT and case-by-case MACT, Applicant's request]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

5. Compliance Monitoring for RTO: The following requirements are effective upon startup of this emission unit.

Compliance Control Parameters: The owner or operator shall install, calibrate, maintain, and operate a system to continuously monitor the RTO retention chamber and shall record 15-minute block averages, and 12-hour block averages based on the 15-minute block averages. Temperature data

recorded when no press exhaust is directed to the RTO, as evidenced by the isolation damper position data (see following paragraph), may be excluded from the 12-hour block average. 15-minute block average retention chamber temperatures shall be used to demonstrate compliance with the 4 hour minimum temperature requirement of condition 3 of this section. The 12-hour block average retention chamber temperature shall be used to demonstrate compliance with the set point temperature requirement of condition 3 of this section.

Operational Status Indicators: The owner or operator shall install, calibrate, maintain, and operate a system to continuously monitor the isolation damper position for the RTO. The isolation damper position shall be recorded when position changes occur. Records of the isolation damper position shall be used, in conjunction with records of operation of the dryers, to demonstrate compliance with the requirement of condition 3 of this subsection to direct press exhaust to the RTO.

[Rules 62-4.070(3), 62-204.800(10)(d)2 and 62-212.400, F.A.C., BACT and case-by-case MACT]

6. Emission Tests Required: The owner or operator shall demonstrate compliance with the emission limits of this subsection by testing the RTO initially and annually using the test methods of 40 CFR 60 Appendix A specified below.

POLLUTANT	TEST METHOD
PM/PM_{10}	Method 5
NOx	Method 7 or 7E [1]
CO	Method 10
VOC	Method 25A [2]
VE	Method 9

[1] Results shall be reported as pounds of NO_2 per hour.
[2] Results shall be reported as pounds of carbon per hour.

[Rule 62-297.310, F.A.C.]

7. Test for Destruction Efficiency Required: An annual test for destruction efficiency shall be conducted simultaneously with the annual emission test for VOCs for the RTO, with destruction efficiency given by the following, expressed as a percentage:

$$\frac{\text{inlet (lb/hour)} - \text{outlet (lb/hour)}}{\text{inlet (lb/hour)}}$$

Destruction efficiency shall be reported with the VOC test results.

[Note: Destruction efficiency is not limited by this permit. These results are reported to provide the Department with information about RTO performance.]

[Rule 62-4.070(3)]

REPORTING AND RECORD KEEPING REQUIREMENTS

8. Records of Production Rate Required: The owner or operator shall make and maintain records of the production rate of OSB, in units of million square feet on a 3/8-inch basis per month and million square feet on a 3/8-inch basis per consecutive 12 month period, to demonstrate compliance with the limit of condition 2 of this subsection. Records in units of production per consecutive 12-month period shall be

made from monthly records of production rates for the past 12 months, and shall be completed no later than the 10th day of each month. [Rule 62-4.070(3), F.A.C.]

9. Records of Operation for RTO: The owner or operator shall make and maintain daily records of fuel consumption of the RTO, and shall each day, using these records and records of operation and current natural gas heat value, calculate the 30-day rolling average heat input for each RTO in units of million Btu/hr, to demonstrate compliance with the heat input limit of condition 3 of this section. The owner or operator may rely on natural gas heat values provided by the gas supplier. The current natural gas heat value shall be updated no less than quarterly. [Rule 62-4.070(3), F.A.C.]

   [Note: Condition 5 of this section also specifies records of RTO operation required to be made and maintained for compliance monitoring.]

SUBSECTION C.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
003	Screen fines with saw trim transfer baghouse exhaust
004	Saw trim/finishing baghouse exhaust
005	Mat reject/flying saw baghouse exhaust
006	Specialty saw/sander baghouse exhaust
007	Fuel system pneumatics baghouse exhaust
008	Forming bins baghouse exhaust
009	Hammer mill baghouse exhaust

[Note: These emissions units consist of emission points for enclosed material handling processes, predominantly sawdust and wood waste. Particulate emissions for most units are controlled by integrated cyclones and baghouses. These emissions units are subject to the requirements for Prevention of Significant Deterioration pursuant to Rule 62-212.400, F.A.C., for PM/PM_{10}, and of the state rules as indicated in this permit. Emissions are limited in units of pounds per hour and represent BACT for these sources. Limits are based on BACT determinations of 0.01 grains per dry standard cubic foot (gr/dscf) for emissions units 006 and 008, 0.005 gr/dscf for emissions units 004 and 005, 98% control efficiency for emissions unit 010, and greater than 99.99% control efficiency for emissions units 003, 007 and 009. For purposes of estimating potential emissions from these emissions units, all PM is considered to be PM_{10}. The conditions of this permit effectively limit combined annual emissions from these emissions units to 59.1 TPY of PM/PM_{10}.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These emissions units may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

2. Particulate Matter Emissions Limited: Emissions of particulate matter (PM/PM_{10}) shall not exceed the following limits. Emissions units 003 through 009 shall each be equipped with a particulate capture and control system consisting of a local exhaust ventilation system ducted to a receiver/baghouse (an integrated cyclone and bag filter). Emissions unit 010 shall be equipped with a dry filter system.

EMISSIONS UNIT	EMISSION LIMIT (LB/HOUR)
003	2.60
004	1.34
005	2.28
006	2.21
007	0.43

Condition 2, table continued:

EMISSIONS UNIT	EMISSION LIMIT (LB/HOUR)
008	1.96
009	2.65

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

3. Visible Emissions Limited: Visible emissions from each emissions unit shall not exceed 5% opacity. [Rule 62-212.400, F.A.C., and BACT]

4. Compliance with VE Limit in Lieu of Stack Test: For emissions units 003 through 009, after initial testing that demonstrates compliance with the PM limits of specific condition 2 of this section is completed, subsequent compliance testing for PM emissions from these emissions units is waived, and an alternative standard of 5% opacity is imposed, pursuant to Rule 62-297.620(4), F.A.C. If the Department has reason to believe that the particulate weight emissions standard is not being met, it shall require that compliance be demonstrated using EPA Method 5, as described in 40 CFR 60 Appendix A. [Rule 62-297.620(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

5. Emission Tests Required: The owner or operator shall demonstrate compliance with the visible emissions limit for this emissions unit annually using EPA Method 9, as described in 40 CFR 60 Appendix A. Particulate matter (PM) testing, when required, shall be conducted using EPA Method 5, as described in 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

6. Daily Visual Observation Required: The owner or operator shall, at least once each day, observe the emission points of emissions units 003 through 010 while these units are in operation, note whether visible emissions are observed or not and document corrective actions taken, to confirm that the visible emissions limit of condition 3 of this subsection is not exceeded. [Rule 62-4.070(3), F.A.C.]

   [Note: Method 9 observation is not required for compliance with this condition.]

REPORTING AND RECORD KEEPING REQUIREMENTS

7. Records of Daily Visual Observations: The owner or operator shall make and maintain records of daily visual observations required by condition 6 of this subsection.

SUBSECTION D.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
010	Thermal oil system with electrostatic precipitator (ESP) and bypass stack

[Note: The thermal oil system is used to provide heat to the press. It consists of two heaters that use oil as a heat transfer medium, with each heater equipped with a 40 mmBtu/hr wood fuel burner and a 30 mmBtu/hr natural gas fuel backup burner. Each heater is controlled independently, and neither is configured to fire wood and natural gas simultaneously. Exhaust from the heaters is directed to an electrostatic precipitator (ESP), and from there normally routed to the dryer system. This emissions unit is the bypass stack used to direct emissions from the ESP to the atmosphere when the dryer system is not operating or otherwise not available. Wood firing is not limited by this permit but visible emissions shall not exceed 10% when firing wood and bypassing while switching to natural gas.

This emissions unit is subject to the requirements for Prevention of Significant Deterioration pursuant to Rule 62-212.400, F.A.C., for PM/PM_{10}, NOx, CO and VOC, and of the state rules as indicated in this permit. This emissions unit is also subject to the requirements of 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40c – 60.48c) for the periods whenever exhaust is emitted directly to the atmosphere from this emissions unit. Because fuel usage during these periods is limited to natural gas, only the reporting and record keeping requirements of the NSPS apply. This emissions unit is also subject to the requirements for carbonaceous fuel burning equipment of Rule 62-296.410(2)(b), F.A.C., which limits visible emissions and particulate matter while firing wood fuel. Because emissions are routed to the dryer system while wood fuel is fired, and the emission limits for the dryer system are more stringent than the limits of this rule, compliance with the dryer system limits will ensure compliance with this rule.

BACT for this emissions unit is the exclusive firing of natural gas when exhaust is emitted directly to the atmosphere from this emissions unit bypassing the ESP. Operation of the ESP is required at all times while firing wood fuel; although switching to firing natural gas is required, such transition may take a small amount of time. Emissions are otherwise not limited. Potential emissions from wood firing are accounted for in the estimate for emissions unit 001. Potential emissions from firing natural gas, with the exhaust bypassing the ESP to the atmosphere are: PM/PM_{10}, 0.5; NOx, 26.3; CO, 23.6; VOC, 1.3; and SO_2, 0.16 TPY. Potential emissions are overestimated by assuming 8760 hours per year operation while firing natural gas, with no control for PM/PM_{10} from the ESP due to bypassing at the levels resulting from gas firing. Total potential emissions of SO_2 for this emissions unit and emissions unit 001 from firing wood are estimated to be 29.4 TPY. Emissions of SO_2 are not limited by this permit.]

STATE REQUIREMENTS

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]
2. Fuel & Heat Input: Each heater shall be fired with wood waste or natural gas. Heat input for both heaters from firing wood shall be limited to 80 million Btu/hour, on a 30-day rolling average basis. Heat input for both heaters from firing natural gas shall be limited to 60 million Btu/hour, on a 30-

day rolling average basis. Wood and natural gas shall not be co-fired. [Rules 62-4.070(3) and 62-210.200, F.A.C., limitation on potential to emit]

3. Control Technology: Emissions from the thermal oil system shall be controlled with an electrostatic precipitator at all times except when firing natural gas. Exhaust from the electrostatic precipitator shall normally be directed to the dryer system and ultimately to the dryer RTOs (emissions unit 001). Exhaust may be emitted from this emissions unit when the dryer system is not operating or is otherwise not available, but during such times the thermal oil system shall be either fired with wood and controlled by the ESP or fired exclusively with natural gas. If, because of malfunction, exhaust is emitted directly to the atmosphere without ESP control from this emissions unit while the thermal oil system burners are firing wood, the wood fuel feed shall be discontinued as quickly as practicable, and the system shall be switched to firing natural gas, or operation shall be discontinued. In no case shall excess emissions from firing wood exceed the limitations of condition 14 of section II of this permit. [Permitting Note: ESP control is not required for this emission unit while firing exclusively natural gas.]

   [Rules 62-4.070(3), 62-212.400 and 62-296.410(2)(b), F.A.C., and BACT]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

4. Visible Emissions Limited: Visible emissions from this emissions unit shall not exceed 5% opacity. [Rule 62-212.400, F.A.C., and BACT]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

5. Emission Tests Required: To provide information to support emission estimates from this emissions unit, the owner or operator shall test this emissions unit while firing natural gas, initially and prior to renewal of each subsequent operation permit for the pollutants specified in the following table, using the test methods of 40 CFR 60 Appendix A specified below.

POLLUTANT	TEST METHOD
PM/PM_{10}	Method 5
NOx	Method 7 or 7E [1]
CO	Method 10
VOC	Method 25A [2]
VE	Method 9

[1] Results shall be reported as pounds of NO_2 per hour.
[2] Results shall be reported as pounds of carbon per hour.

The owner or operator shall demonstrate compliance with the visible emissions limit for this emissions unit annually using EPA Method 9, as described in 40 CFR 60 Appendix A

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

REPORTING AND RECORD KEEPING REQUIREMENTS

6. Records of Operation: The owner or operator shall make and maintain daily records of fuel consumption and hours of operation of the thermal oil system heaters, and shall each day, using these records and current fuel heat values, calculate the 30-day rolling average heat input for both heaters in units of million Btu/hr, to demonstrate compliance with the heat input limit of condition 2 of this

section. The owner or operator shall determine the current heat value for the wood fuel no less than annually. The owner or operator may rely on natural gas heat values provided by the gas supplier. The current natural gas heat value shall be updated no less than quarterly.

The owner or operator shall also make and maintain records of operation to show the duration each month that the thermal oil system is operated with exhaust discharged from this emissions unit, and the fuels fired during these periods.

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

FEDERAL NSPS REQUIREMENTS

[Note: For ease of use, inapplicable paragraphs are not shown. The numbering of the original rules in the following conditions has been preserved for ease of reference to the rules. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.

This emissions unit is subject to the requirements of 40 CFR 60 Subpart Dc for the periods whenever exhaust is emitted directly to the atmosphere from this emissions unit. Because fuel usage during these periods is limited to natural gas, only the reporting and record keeping requirements of the NSPS apply.]

APPLICABILITY AND DEFINITIONS

7. Pursuant to 40 CFR 60.40c Applicability and Delegation of Authority:

   (a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

8. Pursuant to 40 CFR 60.41c Definitions:

   [Definitions not applicable to this project have been omitted for brevity.]

   As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

   Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

   Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

   Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835–86, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference—see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

9. Pursuant to 60.48c Reporting and Record Keeping Requirements:

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

[Note: The only fuel authorized by this permit while emissions unit 010 is subject to the NSPS requirements is natural gas. Records must be maintained for five years pursuant to the requirements for Title V facilities.]

[Note: For ease of use, inapplicable paragraphs are not shown. The numbering of the original rules in the following conditions has been preserved for ease of reference to the rules. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.]

1. Pursuant to 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).

2. Pursuant to 40 CFR 60.7 Notification And Record Keeping:

   (a) Any owner or operator subject to the provisions of 40 CFR 60 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.

   (b) The owner or operator subject to the provisions of 40 CFR 60 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.

(f) The owner or operator subject to the provisions of 40 CFR 60 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 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least three years following the date of such measurements, maintenance, reports, and records.

(g) 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).

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

3. Pursuant to 40 CFR 60.11 Compliance With Standards And Maintenance Requirements:

(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.

(f) Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of paragraphs (a) through (e) 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 40 CFR 60, nothing in 40 CFR 60 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.

4. Pursuant to 40 CFR 60.12 Circumvention:

No owner or operator subject to the provisions of 40 CFR 60.12 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.

5. Pursuant to 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.

(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.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

6. Pursuant to 40 CFR 60.19 General notification and reporting requirements:

(a) For the purposes of 40 CFR 60, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of 40 CFR 60, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in 40 CFR 60 for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under 40 CFR 60 to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under 40 CFR 60, the owner or operator may change the dates by

which periodic reports under 40 CFR 60 shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in 40 CFR 60. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of 40 CFR 60.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in 40 CFR 60.

(2) Notwithstanding time periods or postmark deadlines specified in 40 CFR 60 for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

APPENDIX GC

GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

G.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 these conditions.

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.

G.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.

G.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 permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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.

G.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 and records 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.

G.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 noncompliance, 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.

G.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 extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.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.

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

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology (X);
(b) Determination of Prevention of Significant Deterioration (X); and
(c) Compliance with New Source Performance Standards (X).

G.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 or 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:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.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.

A complete discussion of the Department's technical evaluation and BACT/MACT determination is included in the document titled *Technical Evaluation and BACT/MACT Determination.* Following is a summary of the Department's control technology determinations pursuant to Rules 62-212.400, F.A.C., (BACT) and 62-204.800(10)(d)2, F.A.C., (case-by-case MACT)

SUMMARY OF BACT/MACT TECHNOLOGY DETERMINATIONS

Emissions Unit	Pollutants	BACT/MACT Technologies
001, Dryer	PM/PM_{10}, NOx, CO, VOC, VE	Multiclones and RTOs, 5% opacity
002, Panel Press	PM/PM_{10}, NOx, CO, VOC, VE	RTO, 5% opacity
003 – 009, Enclosed Material Handling	PM/PM_{10}, VE	Cyclone/baghouse, dry filter system (010), 5% opacity
010, Thermal Oil System	PM/PM_{10}, VE	Use of natural gas when exhausts directly to atmosphere. Exhaust directed to dryers when firing wood. 5% opacity
Fugitive emissions	PM/PM_{10} and VOC	Reasonable precautions to prevent emissions of unconfined particulate matter and VOC

Note: Emissions units 001 and 002 are subject to BACT and MACT. The other emissions units and the fugitive emissions are subject to BACT.

The allowable emission limits associated with the BACT/MACT technologies and related compliance requirements are shown in Section III of the permit.

1 APPLICANT NAME AND ADDRESS

Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, Georgia 33602

Authorized Representative: Ronald L. Paul, Executive Vice President, Wood Products & Distribution

2 PROJECT

The project is the construction of the G-P Hosford OSB Plant, a new oriented strandboard manufacturing facility with a capacity of 600 million square feet per year, on a 3/8-inch basis. The project description, emissions and rule applicability are described in the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in the permit, the annual potential emissions associated with this project are: PM/PM_{10}, 296.8; NOx, 449.6; CO, 755.8; and VOC, 413 tons per year. An impact analysis was required for this project because it is subject to the requirements of PSD for these pollutants.

3.1 AIR QUALITY ANALYSIS INTRODUCTION

The proposed project will increase emissions of four regulated pollutants at levels in excess of PSD significant amounts: PM/PM_{10}, CO, NOx, and VOC. PM_{10}, and NOx are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it.

Potential emissions for VOC are above the 40 TPY significance threshold for the pollutant ozone. The applicant presented the potential increases to the Department and the U.S. EPA, and discussed options available to predict potential impacts associated with the emissions and formation of ozone. Based on the available information, the Department has determined that the use of regional models which incorporate the complex chemical mechanisms for predicting ozone formation are not feasible for this project.

The applicant's initial Class II PM_{10} and NO_2 analyses revealed a significant impact in the area surrounding the proposed facility; therefore, Class II AAQS and PSD increment analyses for PM_{10} and NO_2 were conducted. The Class II significant impact analysis for CO produced results that were well below the significant impact levels for the pollutant. The maximum predicted impact for PM_{10} was above its *de minimis* ambient impact level. However, the maximum predicted impacts for NO_2 and CO were below their respective *de minimis* ambient impact levels. Therefore, pre-construction monitoring of NO_2 and CO at the proposed site was not required for this project.

The applicant's initial Class I PM_{10} analysis revealed a significant impact in the Bradwell Bay and St. Marks National Wilderness Areas. However, the maximum predicted impact for NO_2 was below the Class I significant impact level in the nearby Class I Areas. Based on the preceding discussion, the air quality analyses required by the PSD regulations for this project were the following:

- A significant impact analysis for PM_{10}, NO_2, and CO in the surrounding Class II Area;
- A significant impact analysis for PM_{10} and NO_2 in the nearby Class I Areas ;
- A Class II AAQS and PSD increment analysis for PM_{10} and NO_2;
- A Class I PSD increment analysis for PM_{10};
- An analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

3.2 MODELS AND METEOROLOGICAL DATA USED IN THE AIR QUALITY ANALYSIS

PSD Class II Area

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from National Weather Service (NWS) stations at Tallahassee, Florida (surface data) and Apalachicola, Florida (upper air data). The 5-year period of meteorological data was from 1986 through 1990. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

PSD Class I Area

The ISCST3 and the California Puff (CALPUFF) dispersion models were used to evaluate the pollutant emissions from the proposed project in the Bradwell Bay (BBNWA) and St. Marks (SMNWA) National Wilderness Areas. CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources. The CALPUFF model has the capability to treat time-varying sources. It is also suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanisms.

The meteorological data used in the CALPUFF model was processed by the California Meteorological (CALMET) model. The CALMET model utilizes data from multiple meteorological stations and produces a three-dimensional gridded modeling domain of hourly temperature and wind fields. The wind field is enhanced by the use of terrain data which is input into the model. Two-dimensional fields such as mixing heights, dispersion properties, and surface characteristics are produced by the CALMET model

as well. For this project, the CALMET model produced a modeling domain centered over Liberty County that was approximately 475 km in the east-west direction by 300 km in the north-south direction. This modeling domain was produced by utilizing 1990 meteorological data from 3 upper air, 8 surface, and 57 precipitation stations located throughout the states of Florida, Georgia, and Alabama.

3.3 SIGNIFICANT IMPACT ANALYSIS

Typically, in order to conduct a significant impact analysis, the applicant conducts modeling using only the proposed project's emissions at worst case conditions. The highest predicted short-term concentrations and highest predicted annual averages predicted by this modeling are compared to the appropriate significant impact levels for the Class I and Class II Areas. If this modeling at worst case conditions shows significant impacts, additional modeling that includes the emissions from surrounding facilities is required to determine the project's impacts on the existing air quality and any applicable AAQS or PSD increments. If no significant impacts are shown, the applicant does not have to conduct any further modeling.

The significant impact analysis submitted for this project contained two separate analyses; one for the surrounding Class II Area, and another for the BBNWA and SMNWA, which are the nearest Class I Areas. The following paragraphs explain the methodologies and results of these analyses:

PSD Class II Area

Receptors were placed around the proposed facility, which is located in a PSD Class II Area. A combination of fence line, near-field, mid-field, and far-field receptors were utilized for predicting maximum concentrations in the vicinity of the project. The fence line and near-field receptors consisted of discrete Cartesian receptors spaced at 100 meter intervals from the facility fence line out to the first mid-field polar receptor ring. The mid-field receptors consisted of a polar receptor grid with 7 rings and 10° spacing radials out to a distance 5 km from the facility. The far-field receptors consisted of polar receptor grid with 9 rings and 10° spacing radials out to a distance of 14 km from the facility. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility. The table below shows the results of the significant impact modeling for the Class II Area:

MAXIMUM PROJECT AIR QUALITY IMPACTS FOR COMPARISON TO THE PSD CLASS II SIGNIFICANT IMPACT LEVELS IN THE VICINITY OF THE FACILITY

Pollutant	Averaging Time	Max Predicted Impact (ug/m^3)	Significant Impact Level (ug/m^3)	Significant Impact?
PM_{10}	Annual	10.2	1	YES
	24-hour	31.7	5	YES
CO	8-hour	18.3	500	NO
	1-hour	44.6	2000	NO
NO_2	Annual	2.9	1	YES

The results of the significant impact modeling revealed that the maximum predicted air quality impact due to PM_{10} and NO_2 emissions from the proposed project were greater than the significant impact levels for both pollutants. Therefore, the applicant was required to conduct full impact modeling in the Class II Area for PM_{10} and NO_2.

PSD Class I Area

Eighteen discrete receptors were placed along the border and inside the BBNWA, and one hundred twenty seven discrete receptors were placed along the border and inside the SMNWA which are the closest PSD Class I Areas. The BBNWA is located approximately 30 km southeast of the project, and SMNWA is located approximately 56 km southeast of the project. The maximum predicted impacts for PM_{10} and NO_2 due to the proposed project were compared to their respective Class I significant impact levels to determine whether there was a significant impact in either the BBNWA or SMNWA. The table below shows the results of the Class I significant impact modeling:

MAXIMUM PROJECT AIR QUALITY IMPACTS FOR COMPARISON TO THE PSD CLASS I SIGNIFICANT IMPACT LEVELS (BBNWA & SMNWA)

Pollutant	Averaging Time	Max. Predicted Impact at Class I Area (ug/m^3)	Proposed EPA Significant Impact Level (ug/m^3)	Significant Impact?
PM_{10}	Annual	0.05	0.2	NO
	24-hour	1.5	0.3	YES
NO_2	Annual	0.06	0.1	NO

The results of the significant impact modeling revealed that there were significant impacts predicted due to the emissions of PM_{10} during the 24-hour averaging period from this project in the BBNWA and SMNWA. However, the impact was less than significant for NO_2 in the BBNWA and SMNWA. Therefore, full impact modeling was only required for PM_{10} emissions from this project in the Class I Areas.

3.4 FULL IMPACT MODELING

Full impact modeling is modeling that combines the impact of the proposed project along with the impact of other major sources located within the vicinity of the project. The results of this modeling are compared to the applicable AAQS and PSD increments.

PSD AAQS Analysis

The AAQS represents the maximum concentration of a pollutant that ambient air may contain. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PM_{10} and NO_2 in the ambient air surrounding the facility. To make the modeling conservative, the maximum predicted impact was added to a background concentration that was observed at a local air monitor. The results of this analysis are shown in the table below. Maximum PM_{10} and NO_2 concentrations predicted for the proposed project did not show any impacts greater than the AAQS for all corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the AAQS for PM_{10} and NO_2, and may be permitted by Department rules.

PSD AAQS ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m^3)	Background Conc. (ug/m^3)	Total Predicted Impact (ug/m^3)	AAQS (ug/m^3)	Impact Greater Than AAQS?
PM_{10}	Annual	10.6	27	37.6	50	NO
	24-hour	22.6	54	76.6	150	NO
NO_2	Annual	21.6	16	37.6	100	NO

PSD Class II Increment Analysis

The PSD increment represents the amount that sources constructed after the PSD Baseline Dates, (February 8, 1988 for NO_2 and January 6, 1975 for PM_{10}), may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PSD increment consumed in the Class II Area surrounding the facility. The results of this analysis are shown in the table below. Maximum PM_{10} and NO_2 concentrations predicted for the proposed project at receptors in the Class II Area do not show any impacts greater than the PSD Class II increment for the corresponding averaging periods. Therefore, the proposed project will not contribute to a violation of the Class II increment for PM_{10} or NO_2, and may be permitted by Department rules.

PSD CLASS II INCREMENT ANALYSIS

Pollutant	Averaging Time	Max. Predicted Impact (ug/m^3)	Allowable Increment (ug/m^3)	Impact Greater Than Allowable Increment?
PM_{10}	Annual	10.2	17	NO
	24-hour	29.4	30	NO
NO_2	Annual	2.9	25	NO

PSD Class I Increment Analysis

Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PSD increment consumed in the BBNWA and SMNWA Class I Areas. The results of this analysis are shown in the table below. Maximum 24-hour PM_{10} concentrations predicted for the proposed project at receptors in both of the Class I Areas do not show any impacts greater than the PSD Class I increment for the corresponding averaging period. Therefore, the proposed project will not contribute to a violation of the Class II increment for PM_{10} and may be permitted by Department rules.

PSD CLASS I INCREMENT ANALYSIS (BBNWA & SMNWA)

Pollutant	Averaging Time	Max. Predicted Impact (ug/m^3)	Allowable Increment (ug/m^3)	Impact Greater Than Allowable Increment?
PM_{10}	24-hour	1.3	8	NO

The applicant agreed to further emission controls at the proposed facility after this ambient impact modeling analysis was conducted. Therefore, the results shown in all of the tables above are conservative.

3.5 ADDITIONAL IMPACTS ANALYSIS

Impact On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur for all regulated pollutants, as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standard (AAQS). The project impacts are less than the AAQS for all regulated pollutants, and less than the applicable allowable increments for all regulated pollutants. Because the AAQS are designed to protect both the public health and welfare, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

Impact On Visibility

Due to the close proximity of this project to the BBNWA and SMNWA Class I Areas, a regional haze analysis was performed. The CALPUFF dispersion model was recommended by the Department of the Interior for use this regional haze analyses because of its ability to handle atmospheric chemical transformations as well as wet/dry deposition. The results of the refined CALPUFF analysis predicted a change in visibility of 1.36%. This impact is below the NPS threshold of 5%, and it indicates that the proposed project will not have an adverse impact on visibility and regional haze in the BBNWA or the SMNWA.

Growth-Related Air Quality Impacts

There will be a short-term increase in the labor force to construct the project. This temporary increase will not result in significant commercial and residential growth in the vicinity of the project. Operation of the proposed OSB plant will require approximately 120 new permanent employees. It is anticipated that a large percentage of the work force will come from the local population. As a result, growth in the region will not be extensive.

4 MACT DETERMINATION

As discussed in Section II of the permit, since 2000 when PSD-FL-282 was issued, this facility has been and is presently subject to a case-by-case MACT determination for control of HAP emissions under Section 112(g) of the Clean Air Act. The final promulgated MACT standard (40 CFR 63, Subpart DDDD) for Plywood and Composite Wood Products (PCWP) was published in the Federal Register on July 30, 2004 with an effective date of September 28, 2004. Existing PCWP facilities, including this facility, must comply by October 1, 2007. Until the compliance date, this facility is subject to the more stringent limits of this permit or of that standard.

5 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed BACT for the PSD pollutants PM/PM_{10}, NOx, CO and VOC as determined for PSD-FL-282. BACT was proposed to be regenerative thermal oxidizers (RTOs) for the dryers, an RTO/TCO for the panel press, directing emissions to the dryer system from the thermal oil system burners, baghouses for the enclosed material handling emissions units, and precautions to prevent fugitive particulate matter and VOC emissions for the fugitive sources. The applicant proposed that its originally selected controls for the existing permit (PSD-FL-282 issued in 2000) be again selected as the "top" BACT control technologies for this expansion/modification. Because of uncertainty associated with the quality of the furnish material (raw logs), the applicant proposed emission limits in terms of mass emissions (pounds per hour) rather than control efficiency or production based limitations. The mass emission limits proposed were based on factoring the original emission estimates according to the increase in production.

6 BACT DETERMINATION BY THE DEPARTMENT

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques for control of each such pollutant. In addition, Rule 62-212.400(6)(a), F.A.C., states that in making the BACT determination, the Department shall give consideration to:

1. Any Environmental Protection Agency determination of BACT pursuant to Section 169 of the Clean Air Act, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
2. All scientific, engineering, and technical material and other information available to the Department.
3. The emission limiting standards or BACT determination of any other state.
4. The social and economic impact of the application of such technology.

The EPA currently directs that BACT should be determined using the "top-down" approach. In this approach, available control technologies are ranked in order of control effectiveness for the emissions unit under review. The most stringent alternative is evaluated first. That alternative is selected as BACT unless the alternative is found to not be achievable based on technical considerations or energy, environmental or economic impacts. If this alternative is eliminated for these reasons, the next most stringent alternative is considered. This top-down approach is continued until BACT is determined. In general EPA has identified five key steps in the top-down BACT process: Identify alternative control technologies; eliminate technically infeasible options; rank remaining control technologies by control effectiveness; evaluate most effective controls; and then select BACT.

The Department will consider the control or reduction of "non-regulated" air pollutants when determining the BACT limit for regulated pollutants, and will weigh control of non-regulated air pollutants favorably when considering control technologies for regulated pollutants. The Department will also favorably consider control technologies that utilize pollution prevention strategies. These approaches are consistent with EPA's consideration of environmental impacts.

The EPA has determined that a BACT determination shall not result in a selection of a control technology that would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 63 (National Emission Standards for Hazardous Air Pollutants). There are no such limits applicable to this project.

The BACT evaluation should be performed for each emissions unit and pollutant under consideration. For this project, the BACT evaluation was performed for the dryers, panel press and thermal oil system for PM/PM_{10}, NOx, CO, VOC and VE, for the material handling emissions units for PM/PM_{10} and VE, and for the fugitive sources for PM/PM_{10} and VOC emissions.

In addition to the information submitted by the applicant in its application and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For this project, the Department also relied upon information provided by the applicant of recent permit decisions made for similar facilities in Arkansas (G-P, Fordyce, AR), Virginia (G-P, Brookneal, VA) and Alabama (L-P, Hanceville, AL). The Department also relied on an excerpt of NCASI Technical Bulletin 772 (January 1999) Volatile Organic Compound Emissions from Wood Products Manufacturing Facilities Part V – Oriented Strandboard, provided to the Department by the applicant. The Department also relied upon information in EPA's RACT/BACT/LAER Clearinghouse and upon information provided in comments by EPA Region 4 and the Air Quality Branch of the US Fish

and Wildlife Service. For each emission source, the Department's BACT determination is based on this information and the informed judgement of the Department.

7 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

PSD pollutants for this project are PM/PM_{10}, VE, NOx, CO, and VOC. The applicant proposed control technologies for these pollutants based on the current BACT determination for the existing permit (PSD-FL-282). The Department accepts the applicant's proposed technologies as indicated in the following:

7.1 DRYERS

Each dryer will be equipped with multiclones ahead of its connection to the RTOs at a pressure equalization chamber. Dryers are used to dry the wood flakes prior to incorporation into layers with resin that will be pressed to form oriented strandboard. The facility will have five dryers that are direct fired with wood fines with pipeline natural gas as a backup fuel, and also utilize heat in the exhaust gas of the thermal oil system during normal operation. Each dryer's heat input will be 40 mmBtu/hr on either wood or natural gas for a total of 200 mmBtu/hr. Each dryer will exhaust through its associated multiclones and then to a pressure equalization chamber to the two RTOs. Each RTO will be sized to accommodate the flow of up to three dryers. Each RTO will have a heat input of 32 mmBtu/hr for a total of 64 mmBtu/hr. Both RTOs will be required to control all five dryers. If one RTO is offline for bakeout, washout or other maintenance, then only three dryers will be in operation. Permit conditions specify these operating conditions.

PM/PM_{10}, NOx, CO, VOC and visible emissions are the pollutants of concern from the dryers. Particulate matter and VOC – from naturally occurring hydrocarbons present in the wood that are evaporated – are pollutants that result from the drying of the wood flakes, while particulate matter, NOx, CO and VOC are formed by the incomplete combustion of fuels fired in the dryers. Visible emissions will result principally from emission of particulate matter, but may also be present because of VOC or NOx emissions. Insufficient oxygen and poor combustion conditions will increase emissions of particulate matter, CO and VOC. NOx forms principally from two mechanisms, fuel NOx and thermal NOx. Fuel-bound nitrogen combines with oxygen during combustion to form fuel NOx. Fuel NOx is not a significant issue with combustion of wood or natural gas because both are low in fuel-bound nitrogen. Thermal NOx is formed from dissociation of elemental nitrogen and subsequent oxidation during combustion. Thermal NOx formation is increased with increasing combustion temperatures. Control of thermal NOx typically consists of combustion system and burner design to limit peak flame temperatures and staged combustion to maintain reducing conditions at areas of peak flame temperature. The RTOs, which will be fired exclusively with natural gas, will add emissions of NOx associated with combustion of the natural gas in the RTO burners. Some CO emissions may also be associated with incomplete combustion of incoming particulate matter (for example, condensable VOCs) in the RTOs.

For PSD-FL-282, the applicant proposed to use low NOx burners in the dryers to minimize NOx formation, regenerative thermal oxidizers (also with low NOx burners) to control emissions of PM/PM_{10}, CO and VOC, and multiclones for each dryer preceding the RTOs to limit particulate matter loading to the RTOs to minimize particulate fouling of the RTO thermal media. The applicant suggested that this combination of controls represents the top level of control. The applicant proposed emission limits based on overall control efficiencies of 95.4% for PM/PM_{10}, 75% for CO and 95% for VOC. A review of the RACT/BACT/LAER Clearinghouse (RBLC) data shows that BACT is the use of combustion control (for NOx) and RTOs in many cases.

The Department agreed with the applicant's proposed control technologies for PSD-FL-282. The Department required the use of multiclones and RTOs and set mass emission limits for the dryers

consistent with the control efficiencies expected. The equivalent 95% control efficiency for VOC will also control volatile organic HAP emissions to the same degree. Particulate HAP emissions will also be controlled to a level similar to the 95.4% particulate matter control efficiency. The Department did not set a minimum control efficiency for these pollutants to address the applicant's concerns regarding uncertainty and future variability in the quality of the furnished material that may affect short-term levels of control, particularly during annual compliance tests. The Department set a limit for NOx emissions consistent with the applicant's proposed control via low NOx burners. The Department set a VE limit of 10% consistent with the level of emissions expected from the RTOs during normal operation. This opacity limit was increased from 5% to accommodate the unique design of these controls.

7.2 PANEL PRESS

The press is used to compress layers of 8 ft. by 24 ft. mats of wood flakes, resin and wax, that are later cut into 4 ft. by 8 ft. sheets of oriented strandboard product. The press will be indirectly heated using oil as the heat transfer medium. Emissions from the press will be controlled with an RTO or Regenerative Catalytic Oxidizer (RCO). The RTO/RCO will have a heat input of 16 mmBtu/hour.

VOC, CO and a small amount of PM/PM_{10} are emitted from the press. VOC is emitted from the wood and resin during the heated pressing operation. CO is emitted also as a result of partial oxidation of VOCs emitted. The particulate matter is principally condensable hydrocarbons. As with the dryers, the RTO/RCO for the press will create emissions of NOx and some CO. Visible emissions will be related to particulate matter and possibly VOC and NOx emissions.

The applicant proposed to use a regenerative thermal oxidizer (with a low NOx burner) to control emissions of PM/PM_{10}, CO and VOC. Multiclones are not required preceding the RTO/RCO because of the low particulate load from the press. The applicant suggested that this control represents the top level of control. The applicant proposed emission limits based on overall control efficiencies of 75% for PM/PM_{10}, 75% for CO and 95% for VOC. A review of the RACT/BACT/LAER Clearinghouse (RBLC) data shows that BACT is the use of an RTO in many cases.

The Department agreed with the applicant's proposed control technology for PSD-FL-282. The Department required the use of an RTO/RCO and set mass emission limits for the dryers consistent with the control efficiencies expected. The 95% control efficiency for VOC will also control volatile organic HAP emissions to the same degree. Particulate HAP emissions will also be controlled to a level similar to the 75% particulate matter control efficiency. As with the dryers, the Department did not set a minimum control efficiency for these pollutants. The Department set a limit for NOx emissions consistent with the applicant's proposed control via a low NOx burner for the RTO. The Department set a VE limit of 10% consistent with the level of emissions expected from the RTO during normal operation. This opacity limit was increased from 5% to accommodate the unique design of these controls.

7.3 ENCLOSED MATERIAL HANDLING EMISSIONS UNITS

The enclosed material handling processes are used to transport sawdust and wood waste that result from various trimming and sawing operations to the fuel feed system for the dryers and thermal oil system. Particulate emissions for most units are controlled by integrated cyclones and baghouses.

These emissions units emit PM/PM_{10} and visible emissions. The applicant proposed to use integrated cyclones and baghouses to control particulate emissions, and suggested this is the top control technology. The applicant proposed emissions in units of pounds per hour based upon control efficiencies guaranteed by the equipment vendor.

For PSD-FL-282, the Department agreed with the applicant's proposed technology and set mass emission limits based on BACT determinations of 0.01 grains per dry standard cubic foot (gr/dscf) for emissions units 006 and 008, 0.005 gr/dscf for emissions units 004 and 005, 98% control efficiency for emissions unit 010, and greater than 99.99% control efficiency for emissions units 003, 007 and 009. For purposes of estimating potential emissions from these emissions units, all PM was considered to be PM_{10}. Visible emissions were limited to 5% opacity at all times.

7.4 THERMAL OIL SYSTEM

The thermal oil system is used to provide heat to the press. It consists of two heaters that use oil as a heat transfer medium, with each heater equipped with a 40 mmBtu/hr wood fuel burner and a 30 mmBtu/hr natural gas fuel backup burner. Each heater is controlled independently, and neither is configured to fire wood and natural gas simultaneously. Exhaust from the heaters is directed to an electrostatic precipitator (ESP), and from there normally routed to the dryer system. The emissions unit associated with the thermal oil system is the bypass stack used to direct emissions from the ESP to the atmosphere when the dryer system is not operating or otherwise not available.

As with the dryers this emissions unit will emit PM/PM_{10}, NOx, CO and VOC. The applicant did not propose BACT for this emissions unit because its exhaust is normally directed to the dryers and is therefore controlled by the dryer multiclones and RTOs.

Rather than set emission limits for wood firing while this unit emits directly to the atmosphere, the Department determined that BACT for this emissions unit is the exclusive firing of natural gas when exhaust is emitted directly to the atmosphere from this emissions unit and firing of wood when exhaust is emitted directly to the atmosphere from this emissions unit through its ESP. Operation of the ESP is required at all times when firing wood. Switching to firing natural gas is required when the ESP is off. Emissions are otherwise not limited.

This emissions unit is also subject to the requirements of 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40c – 60.48c) for the periods whenever exhaust is emitted directly to the atmosphere from this emissions unit. Because fuel usage during these periods is limited to natural gas, only the reporting and record keeping requirements of the NSPS apply. This emissions unit is also subject to the requirements of Rule 62-296.410(2), F.A.C., for carbonaceous fuel burning equipment, which limits visible emissions and particulate matter while firing wood fuel. Emissions from the thermal oil system are routed to the dryer system while wood fuel is fired and the particulate and visible emission limits for the dryer system are more stringent than the limits of this rule. Compliance with the dryer system limits will ensure compliance with the requirements for carbonaceous fuel burning equipment applicable to the thermal oil system.

7.5 FUGITIVE SOURCES

A BACT determination is required for the fugitive sources of PM/PM_{10} and VOC, per Rule 62-212.400. The applicant proposed to use reasonable precautions to control unconfined emissions of particulate matter and VOC. The Department agreed with the proposed BACT. The permit specifies the reasonable precautions in conditions 10 and 11 of Section II of the permit.

7.6 BACT EXCESS EMISSIONS APPROVAL

Pursuant to Rule 62-210.700 F.A.C., the Department, through this BACT determination, will allow excess emissions for up to two hours for periods of startup and shutdown for the dryers, press and thermal oil system. Excess emissions for startup and shutdown are not permitted for the enclosed

material handling sources. Excess emissions from malfunctions as defined in Rule 62-210.200, F.A.C., are permitted for up to two hours as provided by rule and permit. These excess emissions periods shall be reported as required in condition 25 in Section II of the permit.

8 MACT EMISSIONS

The estimated annual potential emissions of regulated hazardous air pollutants (HAPs) varies depending on the hours the thermal oil system is operated in the bypass mode, as follows:

Pollutants	Thermal oil system operated in bypass mode less than 500 hours per year, tons/year	Thermal oil system operated in bypass mode more than 500 hours per year, tons/year	Thermal oil system operated in bypass mode more than 3300 hours per year, tons/year	MACT significant emission rate, tons/year
Formaldehyde	9.8	>10	>10	10
Total HAPs	23.7	<25	>25	25

Rule 62-204.800(10)(d)2, F.A.C., requires a MACT review for all major sources of HAPs that are to be constructed or reconstructed, unless:

(a) The source is specifically regulated or exempted from regulation under a standard issued pursuant to Section 112(d) "emission Standards," Section 112(h) "Work Practice Standards and Other Requirements," or Section 112(j) "Equivalent Emission Limitation by Permit," and incorporated in another subpart of 40 CFR Part 63; or

(b) The owner or operator of the major source received an air construction permit for the construction or reconstruction project before July 1, 1997, or the source was constructed or reconstructed before July 1, 1997.

In accordance with 40 CFR 63 Subpart B, which was adopted in Florida Administrative Code Chapter 62-204, *Maximum Achievable Control Technology (MACT) emission limitation for new sources* means the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source.

Similar source means a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

(a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.

(b) Available information as defined in 40 CFR 63.41.

8.1 MACT ANALYSIS AND DEPARTMENT'S DETERMINATION

For this facility, the majority of HAPs emitted are VOCs, so control technologies for VOCs are applicable to control of HAPs. The Department reviewed EPA's information on similar sources and EPA's promulgated MACT standards for Plywood and Composite Wood Products. The promulgated standards, for the add-on control option, essentially require 90% reduction across the control device of VOC. The Department's BACT determination, control technology requirements and emission limits for the dryers and press effectively require 95% reduction and thus are more stringent than the level of control of the promulgated MACT and the control of similar sources. The Department hereby establishes that its BACT determination for this permit is also its case-by-case MACT determination for this facility.

9 COMPLIANCE

The compliance methods are detailed in Section III of the permit. Briefly, annual tests are required for the dryer and press RTOs. Monitoring and record keeping are required of operational parameters. Emission testing is required for the thermal oil system initially and upon renewal of each operation permit to provide information for estimating emissions. Compliance testing for the visible emission limitations for the dryers, press and thermal oil system is required on an annual basis. After initial particulate matter emission testing, further testing of the enclosed material handling emissions units is not required because an alternative limitation of 5% opacity is specified per Rule 62-297.620(4), F.A.C. Initial particulate matter emission testing of the spray booth (emissions unit 010) is not required because of its low potential emissions. Daily visual observation of the material handling sources is required for periodic monitoring of the particulate matter control equipment.

10 FINAL DETERMINATION

Based on the foregoing technical evaluation, the Department has made a final determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's final determination is to issue the final permit to allow construction of the new oriented strandboard facility.

DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

Florida Department of Environmental Protection
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114

Recommended By:

Trina L. Vielhauer, Chief
Bureau of Air Regulation

April 18, 2005
Date:

Approved By:

Michael G. Cooke, Director
Division of Air Resource Management

4/20/2005
Date:

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Mr. Ronald L. Paul
Executive Vice President
Wood Products & Distribution
Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, Georgia 30303

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